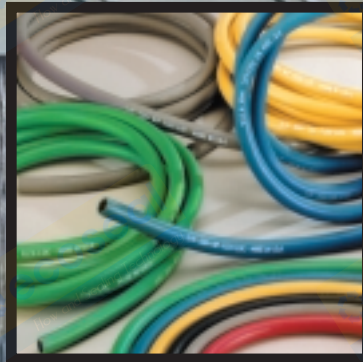


INDUSTRIAL HOSE PRODUCTS



HBD/Thermoid[®], Inc.

SUBSIDIARY OF HBD INDUSTRIES, INC.

WARNING/SAFETY

WARNING

This catalog is intended to provide general guidance and to assist in making the proper hose selection for an application. While the information in this catalog is believed to be accurate, it is based on specific laboratory tests performed under controlled conditions, calculations and assumptions, and not actual field conditions or applications. As such, it does not represent a guarantee with respect to characteristics or performance of the product in any given application or use. Thermoid hose products are intended for selection and use by trained and skilled purchasers and users. The purchaser or user is obligated to determine the suitability of hose for the specific application or use, and to ascertain that intellectual property rights of third parties are not violated.

HBD/THERMOID MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EXCEPT AS IS EXPRESSLY SET IN ITS TERMS AND CONDITIONS OF SALE. HBD/THERMOID SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. See our terms and conditions of sale for further details.

This catalog contains important information regarding the Thermoid hose products, including information on the following topics:

- Welding Hose
- Chemical Hose and Chemical Resistance Chart
- Steam Hose
- Use of Hose in Explosive Atmospheres (Static Electricity)

Please read and understand these and other available guidance before selecting or recommending a hose for your application.

Information in this catalog is subject to revision without notice. For the most current product information visit our website at www.hbdthermoid.com or contact your HBD/Thermoid Customer Service Representative.

SAFETY

In any application where hose failure could cause bodily injury, property damage or other loss, the user is responsible for implementation and maintenance of adequate safety measures. These should include:

- **Regular Inspections.** Hose used in such applications should be inspected at frequent intervals based on the seriousness of the risk. These inspections should include: tube and cover examinations for hardening, brittleness, abrasions, cracks, cuts, blisters, braid exposure and other deterioration and damage; inspection for seepage, leaking slipped couplings and damage to or around couplings; and proof test. Damaged or suspect hose should be replaced immediately.
- **Personal Protective Equipment.** Always use proper protective equipment (for example, gloves, eye protection, protective suits, hardhats, etc.) that will protect the user in the event of hose failure or other accident.
- **Operator Training.** All operators must be thoroughly trained in the care and use of hoses and material conveyed.

Failure to exercise proper safety precautions could result in serious bodily injury, death, property damage or other loss from chemical, elevated temperature materials, explosive or flammable material, impelled couplings, whipping hose, and high pressure or high velocity discharge of materials.

HOSE ENVIRONMENTAL/PHYSICAL PROPERTIES RESISTANCE REFERENCE

HBD/Thermoid®, Inc. has developed a quick reference system for determining general hose resistance characteristics to environmental conditions and physical properties that hose products come into contact with during everyday use. The chart at right outlines a number of specific physical properties and environmental conditions. Each environmental and/or physical property is defined by a specific marking symbol. These resistant marking symbols are shown next to Thermoid® brand hose products throughout this brochure. Resistant symbols are shown for a specific hose product that demonstrates an exceptional resistance when exposed to that particular environmental and/or physical property on a long-term basis. For complete information on hose resistance characteristics and service performance in specific applications and/or environments, please consult your area HBD/Thermoid, Inc., sales representative, review the product specification information listed on our Internet

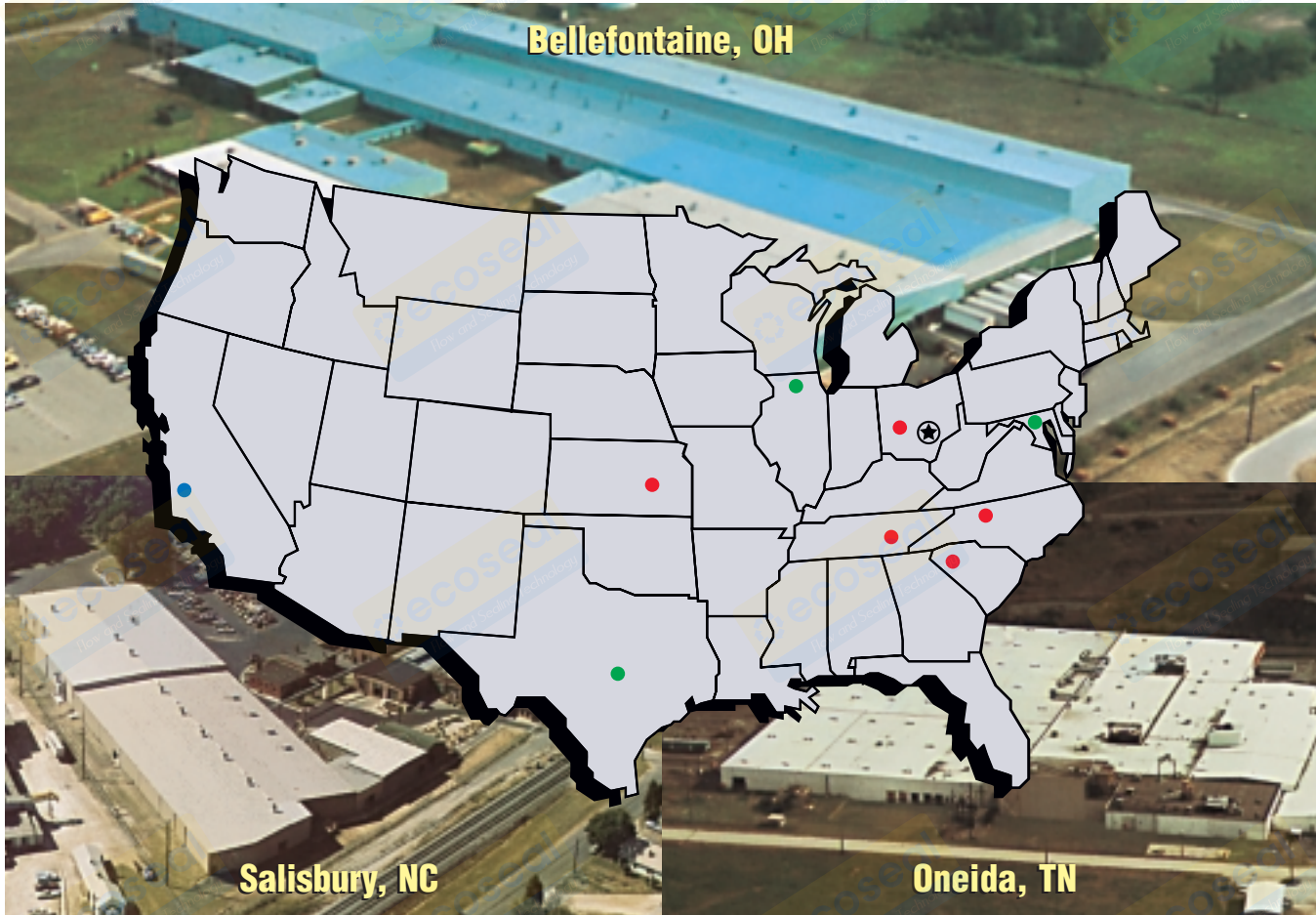
HBD Industries, Inc.

HBD/Thermoid, Inc. is a subsidiary company of HBD Industries, Inc. HBD manufactures quality, application-engineered custom designed and standard industrial products serving many diverse industries and markets. Products manufactured by HBD Industries, Inc. include: AC/DC/BLDC electric motors, aerospace precision components, budding strips, cemented tungsten carbide parts, closed die forgings, coated rubber fabrics, conveyor belting, drives, ducting, gear reducers, hose (automotive, aviation, hand-built, industrial, marine and petroleum), material handling products (metal separators/detectors and electro-magnetic lifting equipment), power transmission belts, rubber bands, rubber roll coverings and ventilation equipment (fans and blowers). For complete details on all the products available from HBD Industries, Inc. companies, visit our web site

Environmental/ Physical Property	Hose Resistance Marking Symbol
Abrasions	
Aging	
Chemical/Acids	
Collapsing	
Coolant	
Diesel Aromatic Fuels	
Fats/Oily Edibles	
Gasoline	
Heat	
Kerosene	
Kinking	
Non-Conductive/Non-Static	
Oil	
Ozone	
Sunlight	
Vibrations	
Water	
Weathering	

INDUSTRIAL HOSE PRODUCTS DELIVERED WHERE AND WHEN YOU NEED THEM

With nationally recognized distributors, strategically located product warehouse facilities and manufacturing plants, HBD/Thermoid®, Inc. can deliver the products you require.



- HBD/Thermoid, Inc. Manufacturing Plants/Product Warehouses
- HBD/Thermoid, Inc. Product Warehouses – All Products
- HBD/Thermoid, Inc. Product Warehouses – Power Transmission Belts
- ★ HBD Industries, Inc. Headquarters

HBD/Thermoid®, Inc.

Our name is widely known and respected as a top-quality manufacturer of industrial rubber products, including air, automotive, aviation, bulk transfer, chemical, hand-built, marine, water, welding and multipurpose industrial hose. HBD/Thermoid, Inc. also produces a variety of other products such as industrial ducting, power transmission belts, conveyor belting, coated rubber fabrics, industrial rubber bands, rubber budding strips and rubber roll coverings. HBD/Thermoid, Inc. has always provided its customers with application engineered products that are technologically advanced in a personalized, customer friendly manner.

All **Thermoid®** brand products, some of which have a 130-year-old legacy of excellence behind them, are produced at HBD/Thermoid, Inc.'s five manufacturing plants: Bellefontaine, OH; Chanute, KS; Elgin, SC; Oneida, TN and Salisbury, NC. **Thermoid®** brand products are used by thousands of industrial customers and consumers around the world. Agriculture, aviation, automotive, basic manufacturing, construction, graphics, food processing, mining, petroleum, railroads, robotics, steel production, transportation and textile manufacturing are just a few of the many markets our products serve.

All of the comprehensive and competitively priced products manufactured by HBD/Thermoid, Inc. are produced in environmentally safe manufacturing facilities that operate under the guidance of **ISO 9001 Quality Systems**. Our expert design and application engineering staff is available to assist and consult with customers, product design engineers and OEMs on new products or product systems. All **Thermoid** brand products are thoroughly tested and application engineered to ensure long-term performance and worker safety.

HBD/Thermoid, Inc. products are available world-wide through a select group of industrial distributors supplying the MRO requirements of customers serving the manufacturing, construction, agricultural, processing, mining, forestry, mineral exploration, transportation, repairs, recreation and consumer markets. Additionally, our product stocking warehouses are conveniently located to provide for timely delivery of any type of hose, belt, conveyor belting, ducting, rubber band or any other **HBD/Thermoid, Inc.** products that you or your customers may need.

INTRODUCTION

Warning/Safety 2
 Hose Environmental/Physical Properties Resistance
 Reference Symbols 2
 HBD/Thermoid, Inc. Map 3
GENERAL INFORMATION
 Commitment to Excellence 6
 General Hose Information 7
 The Thermoid® Brand Advantage 7
 RMA Oil Resistance Data 7
 Minimum Hose Bend Radius Data (MBR) 7

Factors Affecting Hose Service Life 8-9
 Steam Hose Warning 8
 Chemical Hose Warnings 9 & 128
 Static Electricity Warning 9
 Care, Maintenance and Storage 10
 Hose Testing 11
 Hose and Coupling Selection Guide 12
TECHNICAL REFERENCE
 Welding Hose Technical Information 117
 Bulk Transfer/Transporter® Hose Product
 Reference 118

Chemical Resistance Chart 119
 Chemical Warning/Caution 128
Industrial Hose Conversion Factors
 Decimal & Metric Equivalents 129
 Conversion Factors 130
 Temperature Conversion 133
TERMS & CONDITIONS
 Terms & Conditions of Sale 134
HBD INDUSTRIES, INC.
 HBD Industries, Inc. Companies 135

ALPHABETICAL – By Hose Title

A
 AIR BRAKE, TYPE A - SAE J1402 &
 DOT FMVSS 106 28
 AIRFLEX™ 17
 AIR POWER™ JACKHAMMER 22
 ALARM® BOOSTER - Thermocure 112
 ATLAS™ ACID DISCHARGE 45
 ATLAS™ ACID SUCTION & DISCHARGE 45

B
 BF-10 PVC WATER DISCHARGE - BLUE 103
 BLACK HEAVY-DUTY CONTRACTORS
 WATER - Coupled 98
 BLACK HEAVY-DUTY WATER - Coupled 98
 BLACK MAX® M.R.O. 20
 BLACK MUNICIPAL WATER - Coupled 99
 BLACK RACER™ OS&D 49
 BLACK STANDARD HEATER & BLACK OEM
 HEATER SAE 20R3, CLASS D2 TYPE 28
 BLAST-FLEX™ SAND BLAST 95
 BOTTOM LOADING 73
 BURSTPROOF™ OIL RESISTANT STEAM -
 Thermocure 96
 BURSTPROOF™ REGULAR STEAM -
 Thermocure 96

C
 CASCADE PAPER MILL 102
 CHEMICAL & SOLVENT - UHMW
 POLYETHYLENE LINING (Smooth Bore) 49
 COBRA™ FUEL OIL DELIVERY 73
 COMMANDER® ACID DISCHARGE 46
 COMMANDER® ACID SUCTION &
 DISCHARGE 46
 CONVERTAPIPE® - Black Cover 69

D
 DARI-PREEN CREAMERY 111
 DREDGING SLEEVES 61
 DURA-RED™ 18

E
 ELEPHANT TRUNK 90
 EXCALIBUR™ MULTIPURPOSE 25

F
 FIRE EXTINGUISHER - UL92 112
 FISH SUCTION 55
 FLEX-LOC™ PUSH-ON 23
 FLEX-LOC™ 300 PUSH-ON 24
 FLEXLOCK™ CONNECTORS 71
 FLEXLOCK™ ENDS (Full Face Flanges) 71
 FLEXSEAL™ CONNECTORS 72
 FLEXSEAL™ ENDS (Beaded Ends) 72
 FLIGHTMASTER® AIRCRAFT REFUELING 91
 FLIGHTMASTER® JAC RISOR 92
 FUEL LINE, VAPOR EMISSION & CRANKCASE
 VENTILATION - Similar to SAE 30R7 29
 FUEL TRANSFER 150 74
 FURNACE DOOR (Wire Braid) 92

G
 GENERAL PURPOSE COOLANT & DISCHARGE
 100 & 100A 32
 GLACIER™ MULTIPURPOSE 26
 GOLDENAIR® 20
 GREEN GARDEN - Coupled 99
 GREEN GP/OXYGEN 21

H
 HEAVY DUTY COOLANT & DISCHARGE
 101 & 101B 33
 HERCULES® 500 MULTIPURPOSE 25
 HERCULES® 1000 MULTIPURPOSE 26
 HIGHFLEX GRADE C ROTARY VIBRATOR,
 DRILLING & DECKER 94
 HIGHFLEX GRADE D ROTARY DRILLING 93
 HI-VAC™ CO-AX® 82
 HI-VAC™ S CO-AX® 82
 HI-VAC™ WHIP 83
 HY-FLEX™ 200/275/300 DOCK -
 NYLON/UHMWPE TUBE (Rough Bore) 50

K
 KOROBRAID® TUBING 55
 KOROKLEAR® TUBING 56

L
 LP GAS/PROPANE TANKMASTER 88

M
 MAINLINER® 17
 MAXECON/GP 18
 MAXECON™ PLUS 19

N
 NYLAIR 44 WATER DISCHARGE 101

P
 PAPER MACHINE SUCTION BOX 107
 PAPER MILL - TYPE 1788 - Gray Cover 101
 PILE DRIVER STEAM 97
 POLAR-FLEX/CGA TYPE 1
 BUTANE-PROPANE-Thermocure 88
 PREMIER FARM TANK 75
 PUMPFLEX® I - Softwall 76
 PUMPFLEX® II - Hardwall 77
 PUMPFLEX® II - Jumper 78
 PUMPFLEX® MARINA - Softwall 78
 PVC WATER DISCHARGE STANDARD DUTY
 BLUE 104

R
 RADIAL AIRE 21
 RADIAL FLEX® AIR DUCTING - BLUE 61
 RADIAL FLEX® CLEAR FOOD
 PROCESSING 57
 RADIAL FLEX® CONTRACTORS 108
 RADIAL FLEX® EXTRA HEAVY DUTY
 GREEN 109
 RADIAL FLEX® HEAVY DUTY YELLOW 110
 RADIAL FLEX® STANDARD DUTY CLEAR 108
 RADIAL FLEX® STANDARD DUTY CLEAR
 CORRUGATED 109
 RADIAL FLEX® STANDARD DUTY
 CORRUGATED GREEN 110
 RADIAL FLEX® STANDARD DUTY GREEN 107
 RED AIR TOOL COUPLED 22

S
 SAFETYFLEX® 51
 SAFETYFLEX WATER JETTING 51
 SAND & CEMENT DISCHARGE-Black Cover 63
 SAND SUCTION 62
 SANI-WHITE™ WASHDOWN 111
 SINGLE LINE CORRUGATED WELDING,
 GRADE R, TYPE S 114
 SINGLE LINE CORRUGATED WELDING,
 GRADE T 116
 SLIM HOLE ROTARY DRILLING 94
 SUBMARINE 225 PSI (Smooth Bore) 52
 SUPERLITE® HI-FLO™ CO-AX® 79
 SUPERLITE® HI-FLO™ WHIP 80
 SUPERLITE® Q CO-AX® & SUPERLITE® QV
 (Venturi) 80
 SUPERLITE® Q WHIP 81
 SUPERLITE® V (Venturi) 79

T
 TANKMASTER® 200/225 - FKM LINING
 (Smooth Bore) 54
 TANKMASTER® HOT ASPHALT
 (Smooth Bore) 52
 TANKMASTER® K200 OIL SUCTION &
 DISCHARGE 200 PSI (Smooth Bore) 53
 TANKMASTER® NBR LINING 200
 (Smooth Bore) 54
 TANKMASTER® OIL DISCHARGE
 (Smooth Bore) 53
 THERMOID MUD PUMP SUCTION 93
 TRANSPORTER® BLACK TANK TRUCK 85
 TRANSPORTER® CHEMICAL B 47
 TRANSPORTER® CHEMICAL H 47
 TRANSPORTER® CHEMICAL V 48
 TRANSPORTER® EBONITE™ CORRUGATED
 TANK TRUCK 83
 TRANSPORTER® EBONITE LT™ CORRUGATED
 TANK TRUCK 84

TRANSPORTER® FOOD DISCHARGE 57
TRANSPORTER® FOOD SUCTION -
 Gray Smooth Cover 58
TRANSPORTER® FOOD SUCTION -
 White Corrugated Cover 58
TRANSPORTER® GRAY SHADOW
 FOOD SUCTION 59
TRANSPORTER® HOT AIR BLOWER 63
TRANSPORTER® HOT TAR & ASPHALT 90
TRANSPORTER® L.W. CORRUGATED
 TANK TRUCK 84
TRANSPORTER® MATERIAL DISCHARGE 64
TRANSPORTER® MATERIAL SUCTION 64
TRANSPORTER® MULTI-CHEM® 48
TRANSPORTER® OIL FIELD VACUUM 65
TRANSPORTER® PLASTER & CONCRETE 65
TRANSPORTER® RED TANK TRUCK 85
TRANSPORTER® TYPE 120 DRY CEMENT 66
TRANSPORTER® ULTRA-CHEM™ 44
TRANSPORTER® VAPOR RECOVERY 87
TRANSPORTER® WATER DISCHARGE 104
TRANSPORTER® WATER SUCTION &
 DISCHARGE 106
TRANSPORTER® X.L.W. CORRUGATED
 TANK TRUCK 87
TULINE WELDING, GRADE R 113
TULINE WELDING, GRADE R -
 Cut & Coupled (B&B) 114
TULINE WELDING, GRADE T 115
TULINE WELDING, GRADE T -
 Cut & Coupled (B&B) 116
TYPE 65 BUTANE-PROPANE 89
TYPE 75 BUTANE-PROPANE - Thermocure 89
TYPE 95 FOOD - Gray Cover 59
TYPE 96 FOOD - Gray Cover 60
TYPE 101 MATERIAL HANDLING -
 Black Cover 66
TYPE 102 MATERIAL HANDLING 67
TYPE 103 EXHAUST - Black Cover 67
TYPE 105 COLLECTOR - Black Cover 68
TYPE 120 FOOD - Gray Cover 60
TYPE 924 PETROLEUM TRANSFER 86
TYPE 2458 MARINE - Black Cover 41

V
 VALUFLEX®/GS - BLACK 15
 VALUFLEX®/GS - GREEN, YELLOW, BLUE 16
 VALUFLEX®/GS - RED 14
 VERSICON® 19

W
 WASHING MACHINE DRAIN 100
 WASHING MACHINE INLET 100
 WD-150 WATER DISCHARGE 105
 WRAPPED SAND BLAST 95

Z
 ZEPHYR™ AIR 27

1158 SOFTWALL AROMATIC FUEL SAE 30R2
 TYPE 2 30
 2012 STANDARD WALL 3/16" COOLANT
 SAE 20R1 34
 2015 HEAVY WALL 1/4" COOLANT
 SAE 20R1 35
 2400 WET EXHAUST SAE J2006 39
 2428 MARINER PREMIUM WET EXHAUST
 SAE J2006 40
 3003 SILICONE COOLANT STANDARD
 WALL 3/16" 36
 3004 SILICONE COOLANT HEAVY WALL 1/4" 37
 3005 SILICONE COOLANT HEATER
 SAE 20R3 CLASS A 38
 3009 SILCOFLEX™ SILICONE COOLANT
 HARD WALL 38
 7318 SOFT WALL FUEL FILL SAE 30R7 31
 7910 BELLOWFLEX™ "A" COOLANT,
 MARINE, FUEL 42
 7951 SAE 100R4 HYDRAULIC
 RETURN/SUCTION 43

INDUSTRIAL HOSE PRODUCTS INDEX ALPHABETICAL – By Hose Title



ALPHABETICAL – By Hose Application

AIR/MULTIPURPOSE

AIRFLEX™	17
BLACK MAX® M.R.O.	20
DURA-RED™	18
EXCALIBUR™ MULTIPURPOSE	25
FLEX-LOC™ PUSH-ON	23
FLEX-LOC™ 300 PUSH-ON	24
GLACIER™ MULTIPURPOSE	26
GOLDENAIR®	20
GREEN GP/OXYGEN	21
HERCULES® 500 MULTIPURPOSE	25
HERCULES® 1000 MULTIPURPOSE	26
MAINLINER®	17
MAXECON/GP	18
MAXECON™ PLUS	19
RADIAL AIRE	21
VALUFLEX®/GS - BLACK	15
VALUFLEX®/GS - GREEN, YELLOW, BLUE	16
VALUFLEX®/GS - RED	14
VERSICON®	19
ZEPHYR™ AIR	27

Coupled

AIR POWER™ JACKHAMMER	22
RED AIR TOOL COUPLED	22

AUTOMOTIVE/MARINE COOLANT

Automotive – Air Brake, Fuel, Heater & Coolant	
AIR BRAKE, TYPE A - SAE J1402 & DOT FMVSS 106	28
BLACK STANDARD HEATER & BLACK OEM HEATER SAE 20R3, CLASS D2 TYPE	28
FUEL LINE, VAPOR EMISSION & CRANKCASE VENTILATION - Similar to SAE 30R7	29
GENERAL PURPOSE COOLANT & DISCHARGE 100 & 100A	32
HEAVY DUTY COOLANT & DISCHARGE 101 & 101B	33
1158 SOFTWALL AROMATIC FUEL SAE 30R2 TYPE 2	30
2012 STANDARD WALL 3/16" COOLANT SAE 20R1	34
2015 HEAVY WALL 1/4" COOLANT SAE 20R1	35
3003 SILICONE COOLANT STANDARD WALL 3/16"	36
3004 SILICONE COOLANT HEAVY WALL 1/4"	37
3005 SILICONE COOLANT HEATER SAE 20R3 CLASS A	38
3009 SILCOFLEX™ SILICONE COOLANT HARD WALL	38
7318 SOFT WALL FUEL FILL SAE 30R7	31

Marine – Coolant, Fuel & Wet Exhaust

TYPE 2458 MARINE - Black Cover	41
2400 WET EXHAUST SAE J2006	39
2428 MARINER PREMIUM WET EXHAUST SAE J2006	40
7910 BELLOWSFLEX™ "A" COOLANT, MARINE, FUEL	42
7951 SAE 100R4 HYDRAULIC RETURN/SUCTION	43

CHEMICAL

ATLAS™ ACID DISCHARGE	45
ATLAS™ ACID SUCTION & DISCHARGE	45
COMMANDER® ACID DISCHARGE	46
COMMANDER® ACID SUCTION & DISCHARGE	46
TRANSPORTER® CHEMICAL B	47
TRANSPORTER® CHEMICAL H	47
TRANSPORTER® CHEMICAL V	48
TRANSPORTER® MULTI-CHEM®	48
TRANSPORTER® ULTRA-CHEM™	44

DOCK LOADING

BLACK RACER™ OS & D	49
CHEMICAL & SOLVENT - UHMW POLYETHYLENE LINING (Smooth Bore)	49
HY-FLEX™ 200/275/300 DOCK - NYLON/UHMWPE TUBE (Rough Bore)	50
SAFETYFLEX®	51
SAFETYFLEX WATER JETTING	51

SUBMARINE 225 PSI (Smooth Bore)	52
TANKMASTER® HOT ASPHALT (Smooth Bore)	52
TANKMASTER® K200 OIL SUCTION & DISCHARGE 200 PSI (Smooth Bore)	53
TANKMASTER® NBR LINING 200 (Smooth Bore)	54
TANKMASTER® OIL DISCHARGE (Smooth Bore)	53
TANKMASTER® 200/225 - FKM LINING (Smooth Bore)	54

FOOD INDUSTRY

FISH SUCTION	55
KOROBRAID® TUBING	55
KOROKLEAR® TUBING	56
RADIAL FLEX® CLEAR FOOD PROCESSING	57
TRANSPORTER® FOOD DISCHARGE	57
TRANSPORTER® FOOD SUCTION - Gray Smooth Cover	58
TRANSPORTER® FOOD SUCTION - White Corrugated Cover	58
TRANSPORTER® GRAY SHADOW FOOD SUCTION	59
TYPE 95 FOOD - Gray Cover	59
TYPE 96 FOOD - Gray Cover	60
TYPE 120 FOOD - Gray Cover	60

MATERIAL HANDLING

CONVERTAPIPE® - Black Cover	69
DREDGING SLEEVES	61
RADIAL FLEX® AIR DUCTING - BLUE	61
SAND & CEMENT DISCHARGE - Black Cover	63
SAND SUCTION	62
TRANSPORTER® HOT AIR BLOWER	63
TRANSPORTER® MATERIAL DISCHARGE	64
TRANSPORTER® MATERIAL SUCTION	64
TRANSPORTER® OIL FIELD VACUUM	65
TRANSPORTER® PLASTER & CONCRETE	65
TRANSPORTER® TYPE 120 DRY CEMENT	66
TYPE 101 MATERIAL HANDLING - Black Cover	66
TYPE 102 MATERIAL HANDLING	67
TYPE 103 EXHAUST - Black Cover	67
TYPE 105 COLLECTOR - Black Cover	68

Flexible Connectors & Ends

FLEXLOCK™ CONNECTORS	71
FLEXLOCK™ ENDS (Full Face Flanges)	71
FLEXSEAL™ CONNECTORS	72
FLEXSEAL™ ENDS (Beaded Ends)	72

PETROLEUM/LPG

Petroleum	
BOTTOM LOADING	73
COBRA™ FUEL OIL DELIVERY	73
FUEL TRANSFER 150	74
HI-VAC™ CO-AX®	82
HI-VAC™-S CO-AX®	82
HI-VAC™ WHIP	83
PREMIER FARM TANK	75
PUMPFLEX® I - Softwall	76
PUMPFLEX® II - Hardwall	77
PUMPFLEX® II - Jumper	78
PUMPFLEX® MARINA - Softwall	78
SUPERLITE® HI-FLO™ CO-AX®	79
SUPERLITE® HI-FLO™ WHIP	80
SUPERLITE® Q CO-AX® & SUPERLITE® QV (Venturi)	80
SUPERLITE® Q WHIP	81
SUPERLITE® V (Venturi)	79
TRANSPORTER® BLACK TANK TRUCK	85
TRANSPORTER® EBONITE™ CORRUGATED TANK TRUCK	83
TRANSPORTER® EBONITE LT™ CORRUGATED TANK TRUCK	84
TRANSPORTER® L.W. CORRUGATED TANK TRUCK	84
TRANSPORTER® RED TANK TRUCK	85
TRANSPORTER® VAPOR RECOVERY	87
TRANSPORTER® X.L.W. CORRUGATED TANK TRUCK	87

TYPE 924 PETROLEUM TRANSFER	86
LP Gas	
LP GAS/PROPANE TANKMASTER	88
POLAR-FLEX/CGA TYPE 1 BUTANE-PROPANE - Thermocure	88
TYPE 65 BUTANE-PROPANE	89
TYPE 75 BUTANE-PROPANE - Thermocure	89

SPECIAL APPLICATIONS

ELEPHANT TRUNK	90
FLIGHTMASTER® AIRCRAFT REFUELING	91
FLIGHTMASTER® JAC RISOR	92
FURNACE DOOR (Wire Braid)	92
HIGHFLEX GRADE C ROTARY VIBRATOR, DRILLING & DECOKER	94
HIGHFLEX GRADE D ROTARY DRILLING	93
SLIM HOLE ROTARY DRILLING	94
THERMOID MUD PUMP SUCTION	93
TRANSPORTER® HOT TAR & ASPHALT	90

Sand Blast

BLAST-FLEX™ SAND BLAST	95
WRAPPED SAND BLAST	95

STEAM

BURSTPROOF™ OIL RESISTANT STEAM - Thermocure	96
BURSTPROOF™ REGULAR STEAM - Thermocure	96
PILE DRIVER STEAM	97

WATER/FIRE

Water

BLACK HEAVY-DUTY CONTRACTORS	
WATER - Coupled	98
BLACK HEAVY-DUTY WATER - Coupled	98
BLACK MUNICIPAL WATER - Coupled	99
GREEN GARDEN - Coupled	99
WASHING MACHINE DRAIN	100
WASHING MACHINE INLET	100
Water Discharge	
BF-10 PVC WATER DISCHARGE - BLUE	103
CASCADE PAPER MILL	102
NYLAIR 44 WATER DISCHARGE	101
PAPER MILL - TYPE 1788 - Gray Cover	101
PVC WATER DISCHARGE STANDARD DUTY BLUE	104
TRANSPORTER® WATER DISCHARGE	104
WD-150 WATER DISCHARGE	105

Water Suction

PAPER MACHINE SUCTION BOX	107
RADIAL FLEX® CONTRACTORS	108
RADIAL FLEX® EXTRA HEAVY DUTY GREEN	109
RADIAL FLEX® HEAVY DUTY YELLOW	110
RADIAL FLEX® STANDARD DUTY CLEAR	108
RADIAL FLEX® STANDARD DUTY CLEAR CORRUGATED	109
RADIAL FLEX® STANDARD DUTY CORRUGATED GREEN	110
RADIAL FLEX® STANDARD DUTY GREEN	107
TRANSPORTER® WATER SUCTION & DISCHARGE	106

Washdown

DARI-PREEN CREAMERY	111
SANI-WHITE™ WASHDOWN	111

Fire

ALARM® BOOSTER - Thermocure	112
FIRE EXTINGUISHER - UL92	112

WELDING

SINGLE LINE CORRUGATED WELDING, GRADE R, TYPE S	
GRADE R, TYPE S	114
SINGLE LINE CORRUGATED WELDING, GRADE T	
GRADE T	116
TULINE WELDING, GRADE R	
TULINE WELDING, GRADE R - Cut & Coupled (B&B)	114
TULINE WELDING, GRADE T	115
TULINE WELDING, GRADE T - Cut & Coupled (B&B)	116

COMMITMENT TO EXCELLENCE

HBD/Thermoid, Inc. has been the recognized industry leader in spiral hose technology and production innovations for over 30 years. During this time, we developed our unique spiral hose technology, engineered the patented **CONCURE®** continuous manufacturing process and produced billions of feet of spiral reinforced hose products at our various manufacturing facilities.

However, it is not production capacity alone that has given **HBD/Thermoid, Inc.** its position of pre-eminence in the field of industrial, marine and automotive hose and other rubber products. Our strength is, in a great degree, the result of a firm commitment to excellence. This commitment extends to every member of the company...from executive staff to production line worker. It is a point of pride for all. Our personnel are proud of their product and they are proud of our reputation. Our production facilities are models for the industry. Our product research and development is constant, sophisticated and unmatched in expertise and depth of product production knowledge. Quality control is continuous and extends to every facet of our production, packaging and shipping.

GENERAL INFORMATION



AIR/MULTIPURPOSE



AUTOMOTIVE



MARINE



CHEMICAL



FOOD INDUSTRY



MATERIAL HANDLING



DOCK LOADING



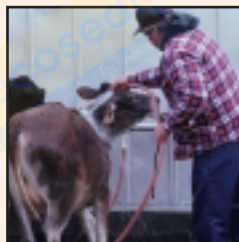
PETROLEUM/LPG



SPECIAL APPLICATIONS



STEAM



WATER



FIRE



WELDING

GENERAL HOSE INFORMATION

The Thermoid® Brand Advantage!

HBD/Thermoid® produces durable, top-quality hose products with lots of value-added features. The CONCURE® continuous manufacturing process was invented, developed and patented by HBD Industries, Inc. and helps us produce the finest hose products possible. Our CONCURE process assures dimensional stability from end to end, provides a contamination-free and smooth hose tube in long, unbroken lengths. This process and our continuous product quality monitoring give us improved dimensional control and allow for closer tolerance control of the I.D. and O.D. of the hose from the tube extruder to the finished reel on all our Flex Strength® hose products. This attention to manufacturing saves our customers time and money. Here are just a few of the benefits you receive by selecting Flex Strength hose products:

- **Long Length Reels** — Over 90% of our reels contain one length of hose, absolutely no three-piece reels, giving you a 15-20% savings due to less scrap.
- **Product Flexibility/Kink Resistance** — Our spiral hose construction offers improved hose flexibility, easy handling on the job and provides increased resistance to kinking.
- **Uncontaminated Tube** — Flex Strength hose is cured with an air mandrel assuring a clean, smooth tube. No dirt or other contaminants to clog nozzles or damage air tools.
- **Brighter Colors/Pin-Pricked Covers** — The CONCURE process provides for more vivid colors for increased visibility and easier identification. Usually present only on critical applications, most Flex Strength hose products have a pin-pricked cover.
- **Wider Working Pressure Range/More Hose Grades** — Flex Strength hose is available with pressure ratings from 150 to 300 psi working pressure, assuring you have the right hose for the job. Our wide variety of products allows you to find the correct hose for every application.
- **Convenience Branding** — Our industrial hose products are branded with size, working pressure, type, Made In USA. Optional branding information is available for private branding as well.

HBD/Thermoid®, Inc. – Leadership through Technology

HBD/Thermoid, Inc. has been and continues to be a leader in developing innovative hose product designs and manufacturing production techniques. This long-term commitment to hose manufacturing benefits all of our customers. Our production expertise provides customers with hose products that they can rely on to stand up to the roughest types of industrial and/or working environments. Outlined below are a few examples of the many hose products, design types and unique manufacturing techniques that assist customers with their daily hose product needs:

Handbuilt

With over 100 years of design experience, **HBD/Thermoid, Inc.** is the leader in handcrafted hose. The line is built by an experienced design team, using a computer-aided system that has received worldwide product approvals. This hose line is not your everyday water hose; it's one that encompasses products like submarine, rotary and the patented Hy-Flex™ dock hose.

Spiral

HBD/Thermoid's LX-200 production lines now produce a selection of Thermoid's most popular hoses in continuous lengths to 200 feet. The most notable example is the **Transporter®** line, which encompasses a wide variety of markets such as petroleum, material handling, chemical and food service.

Thermocure

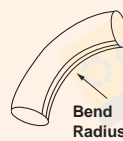
With this process, **HBD/Thermoid** has become a potent force in the PED, Fuel Oil Delivery and LP Gas markets with such product lines like the Hi-Vac™ and Superlite® vapor recovery hoses, the Cobra™ FOD hose and the Type 75 LP Gas hose, just to name a few. The Thermocure process gives these first class products, a showroom quality look.

RMA OIL RESISTANCE DATA

The effects of oil on rubber depend on a number of factors that include the type of rubber compound, the composition of the oil, the temperature and the length of exposure. The RMA (Rubber Manufacturers Association) has developed a classification of hose performance based on sample immersions in ASTM No. 3 oil (High Swell) at 212°F for 70 hours. Oil resistance classifications for rubber stocks are shown in the table below.

Hose Physical Properties After Exposure to Oil		
Classification	Volume Change Maximum	Tensile Strength Retained
Class A (High Oil Resistance)	+25%	80%
Class B (Medium-High Oil Resistance)	+65%	50%
Class C (Medium Oil Resistance)	+100%	40%

MINIMUM HOSE BEND RADIUS DATA (MBR)



The Bend Radius is the radius of the bent section of a hose measured to the innermost surface of the curved portion. It is important because the minimum bend radius is the maximum amount a hose can be bent without being kinked or damaged.

General formula to determine bend length:

$$\frac{\text{Angle of Bend}}{360^\circ} \times 2\pi r = \text{minimum length of hose to make bend}$$

r = given bend radius of hose

Example: to make a 90° bend with a hose with a 2" I.D.

Given *r* = 4.5 inches

$$\frac{90^\circ}{360^\circ} [2 \times 3.14 \times 4.5]$$

$$.25 \times 2 \times 3.14 \times 4.5 = 7" \text{ (inches)}$$

7 inches is the minimum length the hose can be bent without damaging it.

Remember that the bend should take place over the entire minimum length and not a portion of it. In addition, the formula does not mean that 7 inches will be long enough to meet application needs. It only means that if the 90° bend takes place in less than 7 inches, the hose could be damaged.

* Reprinted with permission from the Rubber Manufacturers Association (RMA) Hose Handbook, RMA/IP-2/2003.

FACTORS AFFECTING HOSE SERVICE LIFE

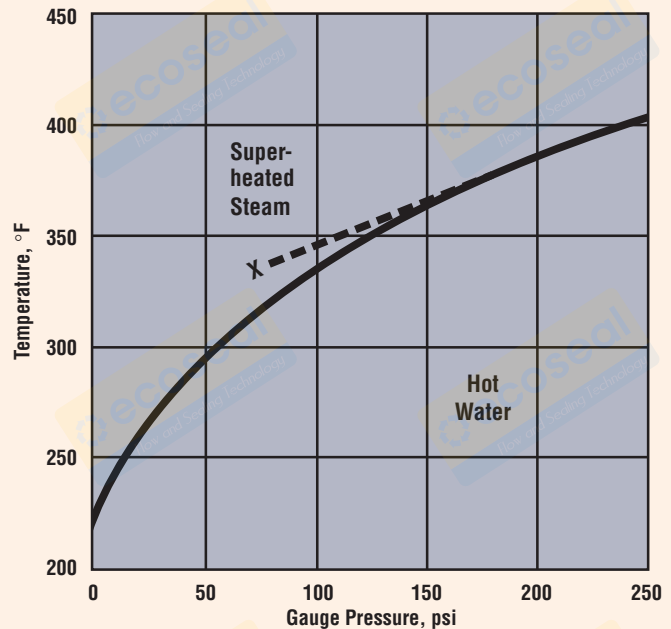
All hose has a limited life for a given application. This is true even if the proper hose has been selected for the application; it is used within rated pressures, temperatures and environmental conditions; and it is properly inspected and maintained. This is because the elastomers and reinforcement used to construct the hose will break down over time and with use. In addition, there are a number of factors that can adversely affect the service life of a hose. The major ones are:

- External Abuse** – Kinking, bending, high end pull, crushing, abrasion, exceeding the recommended minimum bend radius, exposure to chemicals and other abuse or damage will reduce the service life and performance of your hose. This may be the case even though the hose may appear to be undamaged from exterior appearance. Hoses should not be stretched, run over by equipment, or used to hoist, carry or pull objects. Hoses should not be bent beyond recommended minimum bend radius. This could result in kinks which could increase pressure and hose damage that could reduce pressure resistance. Large diameter hoses may require additional support to reduce stretching, kinking and external abuse.
- System Pressures** – **Never use hose at pressures that exceed its ratings.** A system (or device or application) can have varied pressures caused by source, operator action or mechanical components. It is the responsibility of the purchaser or user to accurately determine the maximum system pressure. Steady state pressure can be measured readily by gauges. Surge pressures are difficult to measure and may require the use of electronic pressure sensing devices. "Hammer effects" refers to sudden blockage or stoppage of the system that causes pressure spikes. This can damage or even cause catastrophic failure of the hose or system.
- High Temperatures** – Never use hose at temperatures that exceed its ratings. **High temperatures can degrade a hose very quickly**, resulting in shortened service life. The allowable temperature ranges for the Thermoid hoses are shown on the following pages. These are for **internal product temperatures** and assume external or ambient temperatures do not exceed the recommended working temperature of the fluid. Where external temperatures are higher than these ranges, contact your HBD/Thermoid Customer Service Representative for recommendations. **Fluid and environmental temperatures that are high, but within working temperature of hose, still shorten hose life.**
- Low Temperatures** – Never use hose at lower temperatures than recommended. Doing so could cause the hose to crack or break.
- Misapplication** – HBD/Thermoid designs and supplies a variety of hoses. **Always select the right hose for the application.** HBD/Thermoid disclaims liability for misapplication of its product. Contact your HBD/Thermoid Customer Service Representative for application assistance.
- Internal Abrasion** – Applications involving abrasive fluids, particularly where the hose makes one or more bends, will reduce the service life of the hose.
- Flexing and Vibration** – Flexing, twisting, vibration or other movement of the hose may shorten service life.
- Modifications to the Hose** – Repairing the hose, improperly coupling or re-coupling of the hose, or use of inappropriate fittings and other modifications to the hose will shorten service life and possibly cause immediate failure.
- Improper Installation** – Installing hose assemblies in a manner where the hose is subjected to a **torqued condition (twisted layline)**, will reduce the life of the hose significantly.

STEAM HOSE WARNING

Steam heat is hotter than boiling water (212°F, 100°C) and increases in temperature as pressure increases. The danger from steam in industrial applications is due to the great heat and pressures involved. Water changes to steam at higher temperatures when under pressure. If the steam escapes, massive quantities of heat are released. This, combined with high pressures, can prove to be dangerous for the operator. **Use only steam hoses designed for these applications. A steam hose should never be used to carry pressures or temperatures higher than it is rated to handle, in spite of any safety factor.**

STEAM CHART



The dotted line shows the process of saturated steam being transformed into superheated steam. If a steam line is at a pressure of 150 psi, and a temperature of 366°F, it contains saturated steam. If the pressure is substantially reduced by the expansion of the steam (such as the sudden opening of a valve or the steam passing into a larger pipe or hose), the condition of the steam follows the dotted line to some point X in the superheated steam area. This condition may not last very long, but the superheated steam tends to deteriorate the tube stock in ordinary steam hose intended for use with saturated steam. This usually results in hose failure.

Properties of Saturated Steam

(Abridged from Handbook of Chemistry and Physics – 39th Edition.)

Gauge Pressure (psi)	*Temperature of Saturated Steam (°F)	Gauge Pressure (psi)	*Temperature of Saturated Steam (°F)
10	239	155	368
25	267	160	371
30	274	165	373
35	281	170	375
40	287	175	377
45	292	180	380
50	298	185	382
55	303	190	384
60	307	195	386
65	312	200	388
70	316	205	390
75	320	210	392
80	324	215	394
85	328	220	395
90	331	225	397
95	335	230	399
100	338	235	401
105	341	240	403
110	344	245	404
115	347	250	406
120	350	255	408
125	353	260	409
130	356	265	411
135	358	270	413
140	361	275	414
145	363		
150	366		

* Based on an atmosphere pressure of 14.7 psi.

When making a selection for this type of application, keep safety in mind. Be sure to **select a hose identified as steam hose**. There should be a permanent form of branding on the hose and not just on the package. The manufacturer's name, hose type and operating pressure should be readable. If not, don't use the hose. Also, be sure to identify the type of service the steam hose will be required to accomplish. What will the temperature of the steam be? Will the steam be superheated (dry) or saturated (wet)? What environment will this hose be used in? Be sure that you can recognize that spillage or accumulations of corrosive materials can have a detrimental effect on the hose cover.

Make sure the hose is installed properly by using hose couplings designed for steam service. Check the tightness with each use. Installing and using a shut-off valve between the steam source and the hose will maximize service life and operator safety.

Provide operators with adequate clothing which would include rubber boots, gloves, eye protection and full length protective clothing. **Do not** allow the hose to remain under pressure when not in service. Failure to depressurize and drain the hose when not in service can reduce the usable life of the hose. Continue to monitor hose to ensure it has not deteriorated to the point to where it can no longer provide safe service. Most, if not all steam hoses are date-coded by the manufacturer. It is recommended that assemblies be tagged with a date that it went into service. This information will be helpful in identifying those hoses that should be replaced due to age.

Couplings: Hose couplings are extremely important when steam is being handled. High temperatures and pressures inside steam hose act like a pressure cooker and cause the inside and outside diameters to shrink during use. Couplings must be specifically designed to combat this effect. **Only couplings designed for steam hose should be used.**

CHEMICAL HOSE WARNING

Do not use chemical hose at pressures or temperatures above those recommended by HBD/Thermoid. All operators must be thoroughly trained in the care and use of these hoses, and must, at all times, wear protective clothing and other appropriate safety equipment. A hose or system failure could cause the release of corrosive, flammable or poisonous material. Never allow chemicals to drip on the exterior of the hose or allow the hose to lie in a pool of chemicals since the hose cover may not have the same chemical resistance as the inner tube. If kinking or crushing occurs, immediately subject the assembly to the Hydrostatic Pressure Test and Examination. If the Hydrostatic Test is not an option, immediately replace the assembly. If the reduction of the I.D. is greater than 20%, replace the assembly.

Extreme care must be taken when flushing out a chemical hose with water or removing clogs. Some chemicals, such as concentrated acids may react with the water. Spattering may occur which could result in serious injury to the eyes or other areas of the body. When flushing the hose, care must be taken so that all chemicals or flushing fluids are disposed of according to EPA recommended guidelines.

STATIC ELECTRICITY WARNING

Serious bodily injury, death, property damage or other loss, can result from the use of hose in hazardous or explosive atmospheres due to the buildup of static electricity from the movement of conveyed materials through the hose as well as movement or vibration of the hose against the other surfaces. Hose, as well as the entire system or application, used in such atmospheres must be properly grounded or bonded. For this reason, HBD/Thermoid recommends only hose with static wire be used.

Static electricity, as a source of ignition for flammable vapors, gases and dusts, is a hazard common to a wide variety of industries. A static spark can occur when an electrical charge accumulates on the surfaces of two materials that have been brought together and then separated (between two solids, between a solid and a liquid, or between two immiscible liquids, i.e., incapable of mixing). One surface becomes charged positively and the other surface becomes charged negatively. If the materials are not bonded or grounded, they will eventually accumulate a sufficient electrical charge capable of producing a static spark that could ignite flammable vapors, gases and dusts. Some common processes capable of producing a static ignition are as follows:

- The flow of liquids (for example, petroleum or mixtures of petroleum and water as well as any flammable fluids) through hose, pipes or fine filters.
- The settling of a solid or an immiscible liquid through a liquid (e.g. rust or water through petroleum).
- The ejection of particles or droplets from a nozzle (e.g. water washing operations or the initial stages of filling a tank with oil).
- The vigorous rubbing together and subsequent separation of certain synthetic polymers (e.g. the sliding of a polypropylene rope through PVC gloved hands).

Preventing and/or dissipating static electricity as an ignition source can be accomplished through bonding, grounding or possibly selecting a different non-static conducting material. Bonding is the process of connecting two or more conductive objects together by means of a conductor. Grounding, or earthing, is the process of connecting one or more conductive objects to the ground.**

Certain Thermoid hose incorporates a static wire, which if properly coupled can be used to ground the hose assembly. Other parts of the application or equipment may have to be grounded as well. Hose that does not contain a ground wire will nevertheless have to be grounded if used in an explosive or hazardous atmosphere. In all applications, it is the user's responsibility to ensure the hose assembly and equipment it is used on, is properly grounded to earth.

** Excerpts from Process Safety Handling Hazardous Chemicals, 1/97: Standards & Guidelines – Occupational Safety and Health Administration.

CARE, MAINTENANCE AND STORAGE

Hose has a limited life and the user must be alert to signs of impending failure, particularly when the conditions of service include high working pressures and/or the conveyance or containment of hazardous materials. The periodic inspection and testing procedures described here provide a schedule of specific measures which constitute a minimum level of user action to detect signs indicating hose deterioration or loss of performance before conditions leading to malfunction or failure are reached.

SAFETY WARNING: Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose might result in its failure to perform in the manner intended and might result in possible damage to property and serious bodily injury.

General instructions are also described for the proper storage of hose to minimize deterioration from exposure to elements or environments which are known to be deleterious to rubber products. Proper storage conditions can enhance and extend substantially the ultimate life of hose products.

GENERAL CARE AND MAINTENANCE OF HOSE

Hose should not be subjected to any form of abuse in service. It should be handled with reasonable care. Hose should not be dragged over sharp or abrasive surfaces unless specifically designed for such service. Care should be taken to protect hose from severe end loads for which the hose or hose assembly were not designed. Hose should be used at or below its rated working pressure; any changes in pressure should be made gradually so as to not subject the hose to excessive surge pressures. Hose should not be kinked or be run over by equipment. In handling large size hose, dollies should be used whenever possible; slings or handling rigs, properly placed, should be used to support heavy hose used in oil suction and discharge service.

GENERAL TEST AND INSPECTION PROCEDURES FOR HOSE

An inspection and hydrostatic test should be made at periodic intervals to determine if a hose is suitable for continued service.

A visual inspection of the hose should be made for loose covers, kinks, bulges, or soft spots which might indicate broken or displaced reinforcement.

The couplings or fittings should be closely examined and, if there is any sign of movement of the hose from the couplings, the hose should be removed from service.

The periodic inspection should include a hydrostatic test for one minute at 150% of the recommended working pressure of the hose. An exception to this would be woven jacketed fire hose.* During the hydrostatic test, the hose should be straight, not coiled or in a kinked position.

Water is the usual test medium and, following the test, the hose may be flushed with alcohol to remove traces of moisture. A regular schedule for testing should be followed and inspection records maintained.

SAFETY WARNING: Before conducting any pressure tests on hose, provision must be made to ensure the safety of the personnel performing the tests and to prevent any possible damage to property. Only trained personnel using proper tools and procedures should conduct any pressure tests.

1. Air or any other compressible gas must never be used as the test media because of the explosive action of the gas should a failure occur. Such a failure might result in possible damage to property and serious bodily injury.
2. Air should be removed from the hose by bleeding it through an outlet valve while the hose is being filled with the test medium.

3. Hose to be pressure tested must be restrained by placing steel rods or straps close to each end and at approximate 10 foot (3 m) intervals along its length to keep the hose from "whipping" if failure occurs; the steel rods or straps are to be anchored firmly to the test structure but in such a manner that they do not contact the hose which must be free to move.

4. The outlet end of hose is to be bulwarked so that a blown-out fitting will be stopped.

5. Provisions must be made to protect testing personnel from the forces of the pressure media if a failure occurs.

6. Testing personnel must never stand in front of or in back of the ends of a hose being pressure tested.

7. If liquids such as gasoline, oil, solvent, or other hazardous fluids are used as the test fluid, precautions must be taken to protect against fire or other damage should a hose assembly fail and the test liquid be sprayed over the surrounding area.

STORAGE

Rubber hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents and radioactive materials.

The appropriate method for storing hose depends to a great extent on its size (diameter and length), the quantity to be stored, and the way in which it is packaged. Hose should not be piled or stacked to such an extent that the weight of the stack creates distortions on the lengths stored at the bottom.

Since hose products vary considerably in size, weight, and length, it is not practical to establish definite recommendations on this point. Hose having a very light wall will not support as much load as could a hose having a heavier wall or hose having a wire reinforcement. Hose which is shipped in coils or bales should be stored so that the coils are in a horizontal plane.

Whenever feasible, rubber hose products should be stored in their original shipping containers, especially when such containers are wooden crates or cardboard cartons which provide some protection against the deteriorating effects of oils, solvents, and corrosive liquids; shipping containers also afford some protection against ozone and sunlight.

Certain rodents and insects will damage rubber hose products, and adequate protection from them should be provided.

Cotton jacketed hose should be protected against fungal growths if the hose is to be stored for prolonged periods in humidity conditions in excess of 70%.

The ideal temperature for the storage of rubber products ranges from 50° to 70°F (10-21°C) with a maximum limit of 100°F (38°C). If stored below 32°F (0°C), some rubber products become stiff and would require warming before being placed in service. Rubber products should not be stored near sources of heat, such as radiators, base heaters, etc., nor should they be stored under conditions of high or low humidity.

To avoid the adverse effects of high ozone concentration, rubber hose products should not be stored near electrical equipment that may generate ozone or be stored for any lengthy period in geographical areas of known high ozone concentration.

Hose should not be stored in locations where the ozone level exceeds the National Institute of Occupational Safety and Health's upper limit of 0.10 ppm. Exposure to direct or reflected sunlight – even through windows – should also be avoided. Uncovered hose should not be stored under fluorescent or mercury lamps which generate light waves harmful to rubber.

Storage areas should be relatively cool and dark, and free of dampness and mildew. Items should be stored on a first-in, first-out basis, since even under the best of conditions, an unusually long shelf life could deteriorate certain rubber products.

*Woven jacket fire hose should be tested in accordance with the service test provisions contained in the current edition of National Fire Protection Association Bulletin No. 1962 – Standard for the Care, Use and Service Testing of Fire Hose.

* Reprinted with permission from the Rubber Manufacturers Association (RMA) Hose Handbook, RMA/IP-2/2003.

HOSE TESTING

SAFETY WARNING: *Testing can be dangerous and should be done only by trained personnel using proper tools and procedures. Failure to follow such procedures might result in damage to property and/or serious bodily injury.*

The Rubber Manufacturers Association (RMA) recognizes, accepts and recommends the testing methods of the American Society for Testing and Materials (ASTM).

Unless otherwise specified, all hose tests are to be conducted in accordance with ASTM Method No. D-380 (latest version). Where an ASTM D-380 test is not available, another test method should be selected and described in detail.

RMA participates with ASTM under the auspices of the American National Standards Institute (ANSI) in Technical Committee 45 (TC45) of The International Organization for Standardization (ISO) in developing both hose product and hose test method standards. Many of the hose test method standards published by ISO duplicate or closely parallel those shown in ASTM D-380. Many are unique and, in those cases, the RMA may be able to provide the necessary test standard references which may be purchased from the American National Standards Institute (ANSI).

HYDROSTATIC PRESSURE TESTS

Hydrostatic pressure tests are classified as follows:

1. DESTRUCTIVE TYPE
 - a. Burst test
 - b. Hold test
2. NON-DESTRUCTIVE TYPE
 - a. Proof pressure test
 - b. Change in length test (elongation or contraction)
 - c. Change in outside diameter or circumference test
 - d. Warp test
 - e. Rise test
 - f. Twist test
 - g. Kink test
 - h. Volumetric expansion test

Destructive Tests

Destructive tests are conducted on short specimens of hose, normally 18 inches (460 mm) to 36 inches (915 mm) in length and, as the name implies, the hose is destroyed in the performance of the test.

- a. Burst pressure is recorded as the pressure at which actual rupture of a hose occurs.
- b. A hold test, when required, is a means of determining whether weakness will develop under a given pressure for a specified period of time.

Non-Destructive Tests

Non-destructive tests are conducted on a full length of a hose or hose assembly. These tests are for the purpose of eliminating hose with defects which cannot be seen by visual examination or in order to determine certain characteristics of the hose while it is under internal pressure.

- a. A proof pressure test is normally applied to hose for a specified period of time. On new hose, the proof pressure is usually 50% of the minimum specified burst except for woven jacket fire hose where the proof pressure is twice the service test pressure marked on the hose (67% of specified minimum burst). Hydrostatic tests performed on fire hose in service should be no higher than the service test pressure referred to above. The regulation of these pressures is extremely important so that no deteriorating stresses will be applied, thus weakening a normal hose.

- b. With some type of hose, it is useful to know how a hose will act under pressure. All change in length tests, except when performed on wire braid or wire spiralled hose, are made with original length measurements taken under a pressure of 10 psi (0.069 MPa). The specified pressure, which is normally the proof pressure, is applied and immediate measurement of the characteristics desired are taken and recorded.

Percent length change (elongation or contraction) is the difference between the length at 10 psi (0.069 MPa) (except wire braided or wire spiralled) and that at the proof pressure times 100 divided by the length at 10 psi (0.069 MPa). Elongation occurs if the length of the hose under the proof pressure is greater than at a pressure of 10 psi (0.069 MPa). Contraction occurs if the length at the proof pressure is less than at 10 psi (0.069 MPa). In testing wire braided or spiralled hose, the proof pressure is applied and the length recorded. The pressure is then released and, at the end of 30 seconds, the length is measured; the measurement obtained is termed the "original length."

- c. Percent change in outside diameter or circumference is the difference between the outside diameter or circumference at 10 psi (0.069 MPa) and that obtained under the proof pressure times 100 divided by the outside diameter or circumference at 10 psi (0.069 MPa). Expansion occurs if the measurement at the proof pressure is greater than at 10 psi (0.069 MPa). Contraction occurs if the measurement at the proof pressure is less than at 10 psi (0.069 MPa).
- d. Warp is the deviation from a straight line drawn from fitting to fitting; the maximum deviation from this line is warp. First, a measurement is taken at 10 psi (0.069 MPa) and then again at the proof pressure. The difference between the two, in inches, is the warp. Normally, this is a feature measured on woven jacket fire hose only.
- e. Rise is a measure of the height a hose rises from the surface of the test table while under pressure. The difference between the rise at 10 psi (0.069 MPa) and at the proof pressure is reported to the nearest 0.25 inch (6.4 mm). Normally, this is a feature measured on woven jacket fire hose only.
- f. Twist is a rotation of the free end of the hose while under pressure. A first reading is taken at 10 psi (0.069 MPa) and a second reading at proof pressure. The difference, in degrees, between the 10 psi (0.069 MPa) base and that at the proof pressure is the twist. Twist is reported as right twist (to tighten couplings) or left twist. Standing at the pressure inlet and looking toward the free end of a hose, a clockwise turning is right twist and counterclockwise is left twist.
- g. Kink test is a measure of the ability of woven jacket hose to withstand a momentary pressure while the hose is bent back sharply on itself at a point approximately 18 inches (457 mm) from one end. Test is made at pressures ranging from 62% of the proof pressure on sizes 3 inches (76 mm) and 3.5 inches (89 mm) to 87% on sizes under 3 inches (76 mm). This is a test applied to woven jacket fire hose only.
- h. Volumetric expansion test is applicable only to specific types of hose, such as hydraulic or power steering hose, and is a measure of its volumetric expansion under ranges of internal pressure.

DESIGN CONSIDERATIONS

In designing hose, it is customary to develop a design ratio, which is a ratio between the minimum burst and the maximum working pressure.

Burst test data is compiled and the minimum value is established by accepted statistical techniques. This is done as a check on theoretical calculations, based on the strength of reinforcing materials and on the characteristics of the method of fabrication.

Minimum burst values are used as one factor in the establishment of a reasonable and safe maximum working pressure.

MAXIMUM WORKING PRESSURE IS ONE OF THE ESSENTIAL OPERATING CHARACTERISTICS THAT A HOSE USER MUST KNOW AND RESPECT TO ASSURE SATISFACTORY SERVICE AND OPTIMUM LIFE.

It should be noted that design ratios are dependent on more than the minimum burst. The hose technologist must anticipate natural decay in strength of reinforcing materials, and the accelerated decay induced by the anticipated environments in which the hose will be used and the dynamic situations that a hose might likely encounter in service.

Including all considerations, the following recommended design ratios are given for newly manufactured hose:

1. Water Hose up to 150 psi WP: 3:1
2. Hose for all other liquids, solid materials suspended in liquids or air, and water hose over 150 psi WP: 4:1
3. Hose for compressed air and other gases: 4:1
4. Hose for liquid media that immediately changes into gas under standard atmospheric conditions: 5:1
5. Steam Hose: 10:1

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HOSE AND COUPLING SELECTION GUIDE

GENERAL

A number of hose specifications have been developed for specific applications in industrial, agricultural or public service. These specifications are based on successful performance of the hose in the field as reported by consumers, manufacturers and governmental agencies.

These may be used as procurement specifications or performance standards when the application agrees with the scope of the hose specification. The RMA has published a number of hose specifications which are recommended for use.

Often, additional or new requirements may be imposed on hose because of the severity of service conditions, a change in service conditions, a change in the materials handled or in the method of handling, or the development of new uses or procedures. Hose specifications must then be prepared with the supplier and be based on all conditions affecting the expected service and performance of the hose. Generally, a hose manufacturer may have types of hose or can devise new ones which may meet other requirements than those covered by published standards.

For best performance, a hose should be selected to meet the service conditions under which it is to be used. Before deciding on size, type, and quality of hose, complete information on the actual service requirements should be examined.

SERVICE CONSIDERATIONS FOR HOSE IN CRITICAL APPLICATIONS

Hose is often used in locations and/or to convey materials where property damage or human injury could occur if the hose and/or associate fittings failed while in service.

The user must insure that the service conditions are known to himself and to the hose supplier. The improper use of hose or the use of a hose for service applications for which it was not designed may result in serious consequences.

Some examples of improper uses of hoses include the following: water hose should not be used for chemicals or solvents; low pressure hose should not be used for high pressure service; only steam hose should be used for steam service; hose for conveying mild chemicals should not be used for strong or concentrated acids which require special types of hose. Temperatures in or around the hose should be known so as not to exceed supplier's recommendations, etc.

INFORMATION NEEDED

Hose Dimensions

- (a) I.D.
- (b) O.D.
- (c) Length (state whether overall length or length excluding couplings)
- (d) Tolerance limitations (if normal RMA tolerances cannot be used)

Types of Service

- (a) Material to be conveyed through hose
 1. Chemical name
 2. Concentration
 3. Temperature extremes (low and high)
 4. Solids, description and size
- (b) Working pressure (including surge)
- (c) Suction or vacuum requirements
- (d) Velocity
- (e) Flow Rate

Operating Conditions

- (a) Intermittent or continuous service
- (b) Indoor and outdoor use
- (c) Movement and geometry of use
- (d) Flexibility – Minimum bend radius
- (e) External conditions
 1. Abrasion
 2. Oil (Specify type)
 3. Solvents (Specify type)
 4. Acid (Specify type and concentration)
 5. Temperature Range
 - Normal
 - Highest
 - Lowest
 6. Ozone

Uncoupled Hose

- (a) Bulk or cut to length
- (b) Ends
 1. Straight or enlarged
 2. Capped or raw (uncapped)
 3. Soft ends or wire to end

Coupled Hose, Fittings

- (a) Factory applied
- (b) Field applied
- (c) Type of Fitting
 1. Type of thread
 2. Male or female
 3. Reusable/field attachable
 4. Non-reusable
- (d) Material for Fittings
 1. ANSI (or SAE or ASTM) metal composition specifications

Hose with Built-in Fittings

- (a) Ends
 1. Threaded (type of thread)
 2. Grooved
 3. Beveled for welding
 4. Integral flange
- (b) Flanges
 1. Type (threaded, slip-on, welding neck, lap joint)
 2. Pressure rating
 3. Drilling
- (c) Materials and Dimensions
 1. ANSI (or SAE or ASTM) composition and specifications
 2. Treatment for specific services

Hose Now in Use

- (a) Type of hose
- (b) Service life being obtained and description of failure
- (c) Service life desired

Special Requirements or Properties

- (a) Electrical and static conductive
- (b) Flame resistant
- (c) Sub-zero exposure
- (d) Non-contaminating to material

ORGANIZATIONS HAVING REGULATIONS OR SPECIFICATIONS FOR HOSE

U.S. Government Agencies

- DOD Department of Defense
- DOT Department of Transportation
- FDA Food and Drug Administration
- MSHA Mine Safety and Health Administration
- NHTSA National Highway Traffic Safety Administration
- OSHA Occupational Safety and Health Administration
- PHA Public Health Administration
- USCG U.S. Coast Guard
- USDA U.S. Department of Agriculture

Canadian Agencies and Organizations

- CGA Canadian Gas Association
- CGSB Canadian Government Specifications Board
- RAC Rubber Association of Canada

Other Organizations

- ABS American Bureau of Shipping
- ANSI American National Standards Institute
- API American Petroleum Institute
- ASTM American Society for Testing and Materials
- BIA Boating Industry Association
- BSI British Standards Institute
- CGA Compressed Gas Association
- DIN Deutsches Institut for Normung – German Standards
- DNV Det Norske Veritas
- EN European Norms
- FM Factory Mutual Research
- FPS Fluid Power Society
- ISO International Organization for Standardization
- JIC Joint Industrial Council (defunct)
- JIS Japanese Industrial Standards
- NAHAD National Association of Hose and Accessories Distributors
- NFPA National Fire Protection Association
- National Fluid Power Association
- RMA Rubber Manufacturers Association
- SAE Society of Automotive Engineers
- TFI The Fertilizer Institute
- UL Underwriters Laboratories

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VALUFLEX®/GS – RED

Valuflex/GS is one of the finest multipurpose air and water hose available, anywhere. Red Valuflex provides job/color coding possibilities for safety and other considerations. Valuflex is a very economical general service air and water hose. It can be used in numerous industrial, agricultural and construction applications where oil is **not** a factor. Valuflex is easy to handle and very flexible due to its multi-spiral layers of durable reinforcing polyester yarn. Available in a wide variety of sizes, Valuflex provides constant working pressures of 150, 200, 250, or 300 psi. It has an EPDM tube and cover that resists abrasion, heat and ozone. This hose is **not** for use as a steam hose.



Resistance:



Branding:

Thermod Valuflex/GS Size PSI WP
Made In USA

- Cover Color:** Red
- Oil Resistance:** Limited
- Construction:**
 - Tube:** EPDM
 - Cover:** EPDM
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -40°F to +200°F
-40°C to +93°C
- Packaging:** Reels or †50 ft. length – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00114504100▲	1/4	6.35	0.50	12.70	2	150	1.03	1.50	38.10	0.09	0.13
00114504200	1/4	6.35	0.50	12.70	2	200	1.38	1.50	38.10	0.09	0.13
00114504300	1/4	6.35	0.56	12.70	4	250	1.72	1.50	38.10	0.12	0.18
00114504400	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.16	0.24
00114505200	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.12	0.18
00114505400	5/16	7.94	0.63	15.88	4	300	2.07	2.00	50.80	0.14	0.21
00114506100▲	3/8	9.53	0.69	17.46	2	150	1.03	2.25	57.15	0.16	0.24
00114506200	3/8	9.53	0.69	17.46	2	200	1.38	2.25	57.15	0.16	0.24
00114506251†	3/8	9.53	0.69	17.46	2	200	1.38	2.25	57.15	0.16	0.24
00114506300	3/8	9.53	0.69	17.46	4	250	1.72	2.25	57.15	0.17	0.25
00114506400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00114506451†	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00114508100	1/2	12.70	0.81	20.64	2	150	1.03	3.00	76.20	0.20	0.30
00114508200	1/2	12.70	0.88	22.23	2	200	1.38	3.00	76.20	0.25	0.37
00114508300	1/2	12.70	0.84	21.43	4	250	1.72	3.00	76.20	0.25	0.37
00114508400	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.25	0.37
00114510100	5/8	15.88	0.94	23.81	2	150	1.03	3.75	95.25	0.24	0.36
00114510200	5/8	15.88	1.00	25.40	2	200	1.38	3.75	95.25	0.30	0.45
00114510400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.30	0.45
00114512100	3/4	19.05	1.13	28.58	2	150	1.03	4.50	114.30	0.34	0.51
00114512151†▲	3/4	19.05	1.13	28.58	2	150	1.03	4.50	114.30	0.34	0.51
00114512200	3/4	19.05	1.16	29.37	4	200	1.38	4.50	114.30	0.38	0.57
00114512251†	3/4	19.05	1.16	29.37	4	200	1.38	4.50	114.30	0.38	0.57
00114512500	3/4	19.05	1.16	29.37	4	250	1.72	4.50	114.30	0.38	0.57
00114512550†	3/4	19.05	1.16	29.37	4	250	1.72	4.50	114.30	0.38	0.57
00114512400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.41	0.61
00114512451†	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.41	0.61
00114516200	1	25.40	1.43	36.20	4	150	1.03	7.00	177.80	0.43	0.64
00114516300	1	25.40	1.43	36.20	4	200	1.38	7.00	177.80	0.51	0.76
00114520100	1-1/4	31.75	1.78	45.24	4	150	1.03	8.75	222.25	0.81	1.21
00114524100	1-1/2	38.10	2.03	51.59	4	150	1.03	10.50	266.70	0.95	1.41
00114532100	2	50.80	2.50	63.50	4	150	1.03	14.00	355.60	1.13	1.68

▲ = Make To Order (MTO)
† = 50 ft. length – 1 per carton

VALUFLEX®/GS – Black

Valuflex/GS is one of the finest multipurpose air and water hose available, anywhere. Black Valuflex provides job/color coding possibilities for safety and other considerations. Valuflex is a very economical general service air and water hose. It can be used in numerous industrial, agricultural and construction applications where oil is **not** a factor. Valuflex is easy to handle and very flexible due to its multi-spiral layers of durable reinforcing polyester yarn. Available in a wide variety of sizes, Valuflex provides constant working pressures of 150, 200, 250 or 300 psi. It has an EPDM tube and cover that resists abrasion, heat and ozone. This hose is **not** for use as a steam hose.



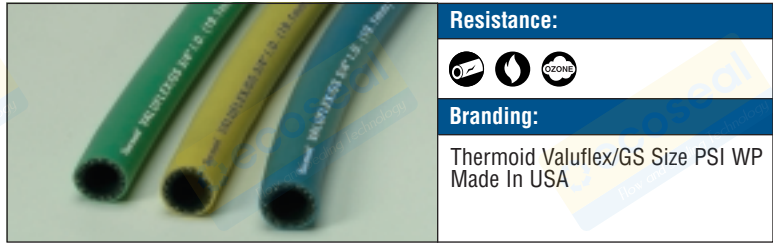
- Cover Color:** Black
- Oil Resistance:** Limited
- Construction:**
 - Tube:** EPDM
 - Cover:** EPDM
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -40°F to +200°F
-40°C to +93°C
- Packaging:** Reels or †50 ft. length – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00114604100▲	1/4	6.35	0.50	12.70	2	150	1.03	1.50	38.10	0.08	0.12
00114604200	1/4	6.35	0.50	12.70	2	200	1.38	1.50	38.10	0.08	0.12
00114604300▲	1/4	6.35	0.56	12.70	4	250	1.72	1.50	38.10	0.12	0.18
00114604400	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.15	0.22
00114605200	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.11	0.16
00114605400	5/16	7.94	0.63	15.88	4	300	2.07	2.00	50.80	0.13	0.19
00114606100▲	3/8	9.53	0.69	17.46	2	150	1.03	2.25	57.15	0.15	0.22
00114606200	3/8	9.53	0.69	17.46	2	200	1.38	2.25	57.15	0.15	0.22
00114606300▲	3/8	9.53	0.69	17.46	4	250	1.72	2.25	57.15	0.16	0.24
00114606400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.17	0.25
00114608100	1/2	12.70	0.81	20.64	2	150	1.03	3.00	76.20	0.19	0.28
00114608200	1/2	12.70	0.88	22.23	2	200	1.38	3.00	76.20	0.24	0.36
00114608300▲	1/2	12.70	0.84	21.43	4	250	1.72	3.00	76.20	0.24	0.36
00114608400	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.24	0.36
00114610100	5/8	15.88	0.94	23.81	2	150	1.03	3.75	95.25	0.23	0.34
00114610200	5/8	15.88	1.00	25.40	2	200	1.38	3.75	95.25	0.29	0.43
00114610400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.29	0.43
00114612100	3/4	19.05	1.13	28.58	2	150	1.03	4.50	114.30	0.33	0.49
00114612151†▲	3/4	19.05	1.13	28.58	2	150	1.03	4.50	114.30	0.33	0.49
00114612200	3/4	19.05	1.16	29.37	4	200	1.38	4.50	114.30	0.36	0.54
00114612251†▲	3/4	19.05	1.16	29.37	4	200	1.38	4.50	114.30	0.36	0.54
00114612300▲	3/4	19.05	1.16	29.37	4	250	1.72	4.50	114.30	0.36	0.54
00114612400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.40	0.60
00114612454†▲	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.40	0.60
00114616100	1	25.40	1.43	36.20	4	150	1.03	7.00	177.80	0.41	0.61
00114616200	1	25.40	1.43	36.20	4	200	1.38	7.00	177.80	0.49	0.73
00114616400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.49	0.73
00114620100	1-1/4	31.75	1.78	45.24	4	150	1.03	8.75	222.25	0.79	1.18
00114624100	1-1/2	38.10	2.03	51.59	4	150	1.03	10.50	266.70	0.90	1.34
00114632100	2	50.80	2.50	63.50	4	150	1.03	14.00	355.60	1.08	1.61

▲ = Make To Order (MTO)
† = 50 ft. length – 1 per carton

VALUFLEX®/GS – GREEN, YELLOW, BLUE

Valuflex/GS is one of the finest multi-purpose air and water hose available, anywhere. Valuflex provides job/color coding possibilities for safety and other considerations. Valuflex is a very economical general service air and water hose. It can be used in numerous industrial, agricultural and construction applications where oil is **not** a factor. Valuflex is easy to handle and very flexible due to its multi-spiral layers of durable reinforcing polyester yarn. Available in a wide variety of sizes, Valuflex provides constant working pressures of 150, 200, 250 or 300 psi. It has an EPDM tube and cover that resists abrasion, heat and ozone. This hose is **not** for use as a steam hose.



- Cover Color:** Green, Yellow or Blue
- Oil Resistance:** Limited
- Construction:**
 - Tube:** EPDM
 - Cover:** EPDM
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -40°F to +200°F
-40°C to +93°C
- Packaging:** Reels or †50 ft. length – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Green											
00114806300	3/8	9.53	0.72	18.26	4	250	1.73	2.25	57.15	0.18	0.27
00114808300	1/2	12.70	0.88	22.23	4	250	1.73	3.00	76.20	0.25	0.37
00114808400▲	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.25	0.37
00114812500	3/4	19.05	1.16	29.37	4	250	1.73	4.50	114.30	0.37	0.55
00114812400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.41	0.61
00114812551†	3/4	19.05	1.16	29.37	4	250	1.73	4.50	114.30	0.37	0.55
00114812455†	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.41	0.61
00114816300▲	1	25.40	1.43	36.20	4	250	1.73	7.00	177.80	0.54	0.80
00114816400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.54	0.80
Yellow											
00114912356▲	3/4	19.05	1.16	29.37	4	250	1.73	4.50	114.30	0.37	0.55
00114912351†▲	3/4	19.05	1.16	29.37	4	250	1.73	4.50	114.30	0.37	0.55
Blue											
00115008300▲	1/2	12.70	0.88	22.23	4	250	1.73	3.00	76.20	0.25	0.37
00115012300	3/4	19.05	1.16	29.37	4	250	1.73	4.50	114.30	0.37	0.55
00115012355†	3/4	19.05	1.16	29.37	4	250	1.73	4.50	114.30	0.37	0.55
00115016300	1	25.40	1.43	36.20	4	250	1.73	7.00	177.80	0.54	0.80

▲ = Make To Order (MTO)
† = 50 ft. length – 1 per carton

MAINLINER®

Mainliner is designed to handle the oily mists used to lubricate pneumatic tools. This hose is an excellent choice for use with pneumatic tools throughout the industry. It features a medium oil-resistant tube with multi-spiral polyester reinforcement that keeps it flexible even in extreme temperatures. The durable cover resists abrasion, cracking, weathering and ozone. Mainliner offers constant working pressures of 200, 250 and 300 psi. Mainliner is the quality value choice for a general service hose for oily, pneumatic equipment lubrication.

Note: Not recommended for handling fuels.



Resistance:



Branding:

Thermod Mainliner Size PSI WP
Made In USA

Cover Color: Red
Oil Resistance: Medium
Construction:
Tube: EPDM, RMA Class C
Cover: EPDM - Limited
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
 -40°C to +93°C
Packaging: Reels or †50 ft. length – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00225504200▲	1/4	6.35	0.50	12.70	2	200	1.38	1.50	38.10	0.09	0.13
00225504400	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.15	0.22
00225505400	5/16	7.94	0.63	15.88	4	300	2.07	2.00	50.80	0.14	0.21
00225506200▲	3/8	9.53	0.69	17.46	2	200	1.38	2.25	57.15	0.15	0.22
00225506400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00225508200▲	1/2	12.70	0.81	20.64	2	200	1.38	3.00	76.20	0.19	0.28
00225508400	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.25	0.37
00225510400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.30	0.45
00225512300	3/4	19.05	1.16	29.37	4	250	1.72	4.50	114.30	0.37	0.55
00225512351†▲	3/4	19.05	1.16	29.37	4	250	1.72	4.50	114.30	0.37	0.55
00225512400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.37	0.55
00225512451†	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.37	0.55
00225516200▲	1	25.40	1.43	36.20	4	200	1.38	7.00	177.80	0.42	0.62
00225516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.50	0.74
00225520200	1-1/4	31.75	1.78	47.63	4	200	1.38	8.75	222.25	0.81	1.21
00225524200	1-1/2	38.10	2.03	51.59	4	200	1.38	10.50	266.70	0.94	1.40
00225532200	2	50.80	2.50	63.50	4	200	1.38	14.00	355.60	1.12	1.67

▲ = Make To Order (MTO)
 † = 50 ft. length – 1 per carton

AIRFLEX™

Airflex hose is the quality choice for any application where a medium oil resistant tube is needed to lubricate air tools. Airflex has a working pressure to 300 psi in a full range of sizes from 1/4" I.D. to 3/4" I.D. It has a highly visible yellow cover that is weather, ozone and abrasion resistant. Airflex has a durable 4-spiral construction to handle abuse oriented applications and a yellow cover for coding applications. Stock the quality choice, the right choice, the highly visible, Airflex hose.



Resistance:



Branding:

Thermod Size WP Airflex
Made In USA

Cover Color: Yellow
Oil Resistance: Medium
Construction:
Tube: EPDM, RMA Class C
Cover: EPDM - Limited
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
 -40°C to +93°C
Packaging: Reels or †50 ft. length – 1 per carton


Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00235504400▲	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.15	0.22
00235506400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00235508400	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.25	0.37
00235512400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.37	0.55
00235512451†	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.37	0.55

▲ = Make To Order (MTO)
 † = 50 ft. length – 1 per carton

DURA-RED™

Dura-Red is the premium non-conductive multipurpose hose that handles oil mist, air, water and mild chemicals. Not recommended for fuels. Meets electrical resistance portion of the Alcoa Potroom air and water specs (30.4.2). Dura-Red has 4-spiral, 300 psi construction to handle abuse oriented applications.



Resistance:

Branding:
Thermoid Dura-Red™ Non-conductive Size PSI WP Made In USA

Cover Color: Red
Oil Resistance: Medium
Construction: Non-conductive
Tube: EPDM, RMA Class C
Cover: EPDM Class C
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
 -40°C to +93°C
Packaging: Reels or †50 ft. length – 1 per carton (3/4" I.D. only)

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00275504400▲	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.16	0.24
00275506400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00275508400	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.25	0.37
00275512400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.38	0.57
00275512451†▲	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.38	0.57
00275516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.51	0.76
00275520300▲	1-1/4	31.75	1.75	44.45	4	300	2.07	8.75	222.25	0.72	1.07

▲ = Make To Order (MTO)
 † = 50 ft. length – 1 per carton

MAXECON/GP

Maxecon is an excellent general purpose air and water service hose that can be used by all industries. It is non-conductive and offers a medium-high oil resistance. Maxecon offers dependable and solid performance with two working pressures: 250 or 300 psi in varying sizes up to 1-1/2" I.D. Its durable cover resists abrasion, weathering and ozone. Maxecon's multi-spiral polyester yarn reinforcement makes this hose durable, flexible and helps eliminate kinks. Maxecon is the ideal hose for use in mining, steel or petroleum applications.

Note: Not recommended for fuel applications.



Resistance:

Branding:
Thermoid Maxecon /GP Non-conductive Size PSI WP Made In USA

Cover Color: Red
Oil Resistance: Cover (Medium) – Tube (High)
Construction: Non-conductive
Tube: Nitrile blend, RMA Class A
Cover: Nitrile blend, RMA Class B
Reinforcement: Spiral polyester yarn
Temperature Range: -20°F to +160°F or 180°F (intermittent)
 -29°C to +71°C or 82°C (intermittent)
Packaging: Reels or †50 ft. length – 1 per carton (3/4" I.D. only)

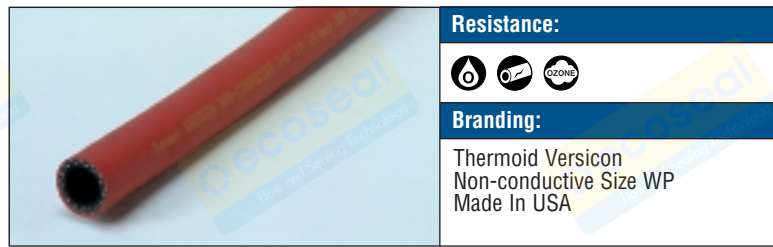
Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00336504300	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.08	0.12
00336504400	1/4	6.35	0.59	15.08	4	300	2.07	1.50	38.10	0.13	0.19
00336505300	5/16	7.94	0.63	15.88	2	250	1.72	2.00	50.80	0.14	0.21
00336506300	3/8	9.53	0.72	18.26	4	250	1.72	2.25	57.15	0.17	0.25
00336506400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.17	0.25
00336508300	1/2	12.70	0.88	22.23	4	250	1.72	3.00	76.20	0.24	0.36
00336508400	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.24	0.36
00336510400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.28	0.42
00336512300	3/4	19.05	1.16	29.37	4	250	1.72	4.50	114.30	0.36	0.54
00336512400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.40	0.60
00336512454†	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.40	0.60
00336516300	1	25.40	1.43	36.20	4	250	1.72	7.00	177.80	0.49	0.73
00336516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.58	0.86
00336520300	1-1/4	31.75	1.78	45.24	4	250	1.72	8.75	222.25	0.78	1.16
00336524300	1-1/2	38.10	2.03	51.59	4	250	1.72	10.50	266.70	0.90	1.34

† = 50 ft. length – 1 per carton

VERSICON®

Versicon is a premium, non-conductive hose designed to stand up to the tough working conditions found in shipyards, steel processing automotive plants and construction industries. The NBR tube can convey oil, diesel, kerosene, fuel oil and other petroleum based products. Its 4-spiral polyester reinforcing cords provide strength and flexibility even in extreme temperatures. The synthetic cover resists oil and solvents and also cracking, abrasion and ozone. Versicon meets the standard for conductivity which makes it ideal for the aluminum reduction industry as well as other applications where a high degree of electrical non-conductivity is required. Versicon provides smooth, easy handling and offers a constant pressure of either 250 or 300 psi 1/4" through the 1-1/2" sizes. Versicon is kink resistant, crush proof and is the ideal choice for harsh, demanding applications.

Note: Not recommended for a variety of unleaded gasoline.



Cover Color: Red
Oil Resistance: High
Construction: Non-conductive
Tube: NBR, RMA Class A
Cover: Nitrile/PVC Class A
Reinforcement: Spiral polyester yarn
Temperature Range: -20°F to +180°F
 -29°C to +82°C
Packaging: Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00447504400	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.16	0.24
00447506400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00447508400	1/2	12.70	0.88	22.23	4	300	2.07	3.00	76.20	0.25	0.37
00447512400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.42	0.62
00447516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.63	0.94
00447520300	1-1/4	31.75	1.78	45.24	4	250	1.72	8.75	222.25	0.81	1.21
00447524300	1-1/2	38.10	2.03	51.59	4	250	1.72	10.50	266.70	0.95	1.41

MAXECON™ PLUS

Maxecon Plus is a premium, quality non-conductive hose. It is rated high in oil resistance and can be used to convey oil, fuel oil, diesel, kerosene and other petroleum derived products. Maxecon Plus provides dependable and solid performance with a working pressure of 300 psi to 1" I.D. Its durable oil and solvent resistant brown cover also stands up to abrasion, weathering and ozone. Maxecon's multi-spiral polyester yarn reinforcement makes this hose strong, flexible and helps eliminate kinks. Maxecon Plus is the ideal hose for use in mining, steel or petroleum industrial applications.

Note: Not recommended for a variety of unleaded gasoline.



Cover Color: Brown
Oil Resistance: High
Construction: Non-conductive
Tube: NBR, RMA Class A
Cover: NBR/PVC RMA Class A
Reinforcement: Spiral polyester yarn
Temperature Range: -20°F to +180°F
 -29°C to +82°C
Packaging: Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00447404400	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.16	0.24
00447406400	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00447408400	1/2	12.70	0.91	23.02	4	300	2.07	3.00	76.20	0.25	0.37
00447412400	3/4	19.05	0.88	22.23	4	300	2.07	4.50	114.30	0.42	0.62
00447416400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.61	0.91

BLACK MAX® M.R.O.

This premium quality, non-conductive hose is high in oil resistance throughout. Its fuel line quality will convey oil, fuel oil, diesel, kerosene and other petroleum derived products. Its tough, black cover resists oils and solvents as well as weathering, ozone and abrasion. Hose is tested to have a minimum of 1,000,000 ohms per inch resistance when tested with a 1,000 volt D.C. meggar.

Note: Not recommended for a variety of unleaded gasoline.



Resistance:	   
Branding:	Thermoid Versicon/Black Max MRO Non-conductive Size WP Made In USA

Cover Color: Black
Oil Resistance: High
Construction: Non-conductive
Tube: NBR, RMA Class A
Cover: NBR/PVC RMA Class A
Reinforcement: Spiral polyester yarn
Temperature Range: -20°F to +180°F
 -29°C to +82°C
Packaging: Reels


Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00447604400▲	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.16	0.24
00447606400▲	3/8	9.53	0.72	18.26	4	300	2.07	2.25	57.15	0.18	0.27
00447608400▲	1/2	12.70	0.91	23.02	4	300	2.07	3.00	76.20	0.25	0.37
00447612400▲	3/4	19.05	0.88	22.23	4	300	2.07	4.50	114.30	0.42	0.62
00447616400▲	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.60	0.89




▲ = Make To Order (MTO)

GOLDENAIR®

Goldenair is an excellent general purpose hose for air, petroleum products and nitrogen service. Designed for the harsh conditions found in steel mills, shipyards, foundries, auto plants and construction sites, Goldenair resists weathering, ozone and abrasion. Goldenair provides a constant working pressure to 350 psi in 3/4" size and is kink resistant. This premium quality hose is non-conductive. It has a tough, durable cover that resists oils and other solvents. Its 4-spiral polyester yarn reinforcement provides added strength and flexibility even in the most extreme conditions.

Note: Not recommended for a variety of unleaded gasoline.



Resistance:	  
Branding:	Thermoid Versicon/Goldenair Non-conductive Size PSI WP Made In USA (For Nitrogen Use)

Cover Color: Yellow
Oil Resistance: High
Construction: Non-conductive
Tube: NBR, RMA Class A
Cover: NBR/PVC RMA Class A
Reinforcement: Spiral polyester yarn
Temperature Range: -20°F to +180°F
 -29°C to +82°C
Packaging: Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00447312600	3/4	19.05	1.16	29.37	4	350	2.41	4.50	114.30	0.38	0.57
00447316400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.61	0.91

GREEN GP/OXYGEN

Green GP/Oxygen hose is designed to handle the harsh, abusive conditions found in steel producing and oil refinery environments. The green cover is commonly color coded for oxygen in mills. It features a medium-high oil resistant NBR blend tube with a 4-spiral polyester yarn reinforcement. The high oil resistant cover and a constant working pressure of 300 psi make this tough, heavy-duty hose the ideal choice for industrial use.

Note: This hose is not recommended for fuel or air breathing applications.



Resistance:



Branding:

Size: WP-GP/Oxygen-
Made In USA

Cover Color: Green
Oil Resistance: Medium-High
Construction:
Tube: NBR blend, RMA Class B
Cover: NBR/PVC, RMA Class B
Reinforcement: Spiral polyester yarn
Temperature Range: -20°F to +180°F
 -29°C to +82°C
Packaging: Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00336606400	3/8	9.53	0.88	22.23	4	300	2.07	2.25	57.15	0.29	0.43
00336608400	1/2	12.70	0.94	23.81	4	300	2.07	3.00	76.20	0.29	0.43
00336612400	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.39	0.58

RADIAL AIRE

Radial Aire is a premium, multipurpose PVC air hose used across industry. Radial Aire is a medium-high resistant hose and offers an operating temperature range between -10°F and +150°F. Radial Aire provides smooth, solid performance and offers constant working pressure of 250 or 300 psi. It features a durable PVC cover and tube with a 2-spiral polyester reinforcing cords that help keep the hose kink resistant and flexible.



Resistance:



Branding:

Thermoid Radial Aire Size WP
Made In Canada

Cover Color: Blue or Red
Oil Resistance: Medium-High
Construction:
Tube: PVC, RMA Class B
Cover: PVC, RMA Class B
Reinforcement: Spiral polyester yarn
Temperature Range: -10°F to +150°F
 -23°C to +66°C
Packaging: Reels or coupled lengths

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Red											
00134504400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.09	0.13
00134505400▲	5/16	7.94	0.56	14.29	2	300	2.07	2.00	50.80	0.11	0.16
00134506400	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.14	0.21
00134508400	1/2	12.70	0.78	19.84	2	300	2.07	3.00	76.20	0.18	0.27
00134510500▲	5/8	15.88	0.91	23.02	2	250	1.72	3.75	95.25	0.22	0.33
00134512500	3/4	19.05	1.03	26.19	2	250	1.72	4.50	114.30	0.25	0.37
Blue											
00135004400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.09	0.13
00135005400▲	5/16	7.94	0.56	14.29	2	300	2.07	2.00	50.80	0.11	0.16
00135006400	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.14	0.21
00135008400	1/2	12.70	0.78	19.84	2	300	2.07	3.00	76.20	0.18	0.27
00135010500▲	5/8	15.88	0.91	23.02	2	250	1.72	3.75	95.25	0.22	0.33
00135012500	3/4	19.05	1.03	26.19	2	250	1.72	4.50	114.30	0.25	0.37

▲ = Make To Order (MTO)

Coupled Lengths

Product Number Red	Product Number Blue	Nominal I.D.		Lengths	
		(inches)	(mm)	(feet)	(meters)
00134584425▲	N	1/4	6.35	25.00	7.62
00134584451▲	N	1/4	6.35	50.00	15.24
00134586425▲	00135086425▲	3/8	9.53	25.00	7.62
00134586451▲	00135086451▲	3/8	9.53	50.00	15.24

▲ = Make To Order (MTO) N = Non-Stock

AIR POWER™ JACKHAMMER

Thermoid Air Power Jackhammer is a hose as tough as its name. A rugged 4-spiral construction in either 200 or 300 psi, Air Power can tackle the job that only a jackhammer can dish out. The EPDM tube and cover handles heat, ozone and weather cracking better than other compounds. The OEM factory assemblies have domestic or foreign manufactured couplings with either 1 or 2 bands per end. Durability is built-in and this hose is ready for hard work.



Resistance:
Branding:
Thermoid Air Power 3/4" Made In USA

Cover Color: Red (also available in yellow)
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +212°F
 -40°C to +100°C
Packaging: 50 ft. lengths – 5 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00114581451	3/4	19.05	1.16	29.37	4	200	1.38	4.50	114.30	0.38	0.57
00114581452	3/4	19.05	1.16	29.37	4	200	1.38	4.50	114.30	0.38	0.57
00114580407	3/4	19.05	1.16	29.37	4	300	2.07	4.50	114.30	0.41	0.61

RED AIR TOOL COUPLED

This tough, versatile factory coupled air hose is specifically designed to stand up to the harsh working conditions found on most project construction sites and industrial environments. Available in either 200 or 300 psi working pressures, this air hose features an EPDM tube and cover with a 4-spiral polyester reinforcement that provides excellent flexibility. This hose will resist kinking, abrasions, heat and ozone. This hose is cut to lengths and is coupled with Male x Male fittings with 1/4" or 3/8" threads per customer requirements.



Resistance:
Branding:
Thermoid Air Power Size WP 4 SP Made In USA

Cover Color: Red
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +212°F
 -40°C to +100°C
Packaging: See Chart

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Lengths	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(feet)	(meters)
00114586454▲	1/4	6.35	0.59	15.08	4	200	1.38	50	15.25
00114587454▲	1/4	6.35	0.63	15.88	4	300	2.07	50	15.25
00114586624▲	3/8	9.53	0.72	18.26	4	200	1.38	25	7.62
00114587624▲	3/8	9.53	0.72	18.26	4	300	2.07	25	7.62
00114587628▲	3/8	9.53	0.72	18.26	4	300	2.07	25	7.62
00114586654▲	3/8	9.53	0.72	18.26	4	200	1.38	50	15.25
00114586658▲	3/8	9.53	0.72	18.26	4	200	1.38	50	15.25
00114587654	3/8	9.53	0.72	18.26	4	300	2.07	50	15.25
00114587658▲	3/8	9.53	0.72	18.26	4	300	2.07	50	15.25

▲ = Make To Order (MTO)

AIR/MULTIPURPOSE – Coupled

FLEX-LOC™ PUSH-ON

Flex-Loc is the state-of-the-art in push-on hose. It allows push-on fittings to be inserted into place easily and quickly. No special crimping tools are required. Flex-Loc has exceptional coupling retention. The superior holding ability is created by a unique spiral yarn angle design and aramid fiber reinforcement that grips the fitting from the inside. Fittings on the Flex-Loc will not give even under full working pressure. Flex-Loc is available with a 250 psi working pressure. Flex-Loc provides smooth, safe performance in the most demanding, harsh working conditions. Flex-Loc is a high oil resistant, push-on hose. Its tube and cover make this a very effective, working hose for industrial, warehouse and other applications where a convenient push-on hose fitting could be used and value is essential.

Note: Not recommended for a variety of unleaded gasoline.



Resistance:



Branding:

Size WP – Flex-Loc – Made In USA

- Cover Color:** Black, Blue, Gray, Red, Green or Yellow
- Oil Resistance:** High
- Construction:** Non-conductive
- Tube:** Nitrile, RMA Class A
- Cover:** Nitrile/PVC RMA Class A
- Reinforcement:** Spiral aramid yarn
- Temperature Range:** -20°F to +180°F
-29°C to +82°C
- Packaging:** Reels – 700 ft. or 250 ft.

Product Number 700 ft. Reels	Product Number 250 ft. Reels	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Reinforcement Spirals	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)
Black							
00338404300	00338404398	1/4 6.35	0.50 12.70	2	250 1.72	1.50 38.10	0.09 0.13
00338406300	00338406398	3/8 9.53	0.63 15.88	2	250 1.72	2.25 57.15	0.12 0.18
00338408300	00338408398	1/2 12.70	0.75 19.05	2	250 1.72	3.00 76.20	0.16 0.24
00338410300	00338410398	5/8 15.88	0.91 23.02	2	250 1.72	3.75 95.25	0.22 0.33
00338412300	00338412398	3/4 19.05	1.03 26.19	2	250 1.72	4.50 114.30	0.25 0.37
Blue							
00338504300	00338504398▲	1/4 6.35	0.50 12.70	2	250 1.72	1.50 38.10	0.09 0.13
00338506300	00338506398	3/8 9.53	0.63 15.88	2	250 1.72	2.25 57.15	0.12 0.18
00338508300	00338508398▲	1/2 12.70	0.75 19.05	2	250 1.72	3.00 76.20	0.16 0.24
Gray							
00338604300	00338604398▲	1/4 6.35	0.50 12.70	2	250 1.72	1.50 38.10	0.09 0.13
00338606300	00338606398▲	3/8 9.53	0.63 15.88	2	250 1.72	2.25 57.15	0.12 0.18
00338608300	00338608398▲	1/2 12.70	0.75 19.05	2	250 1.72	3.00 76.20	0.16 0.24
Red							
00338704300	00338704398▲	1/4 6.35	0.50 12.70	2	250 1.72	1.50 38.10	0.09 0.13
00338706300	00338706398▲	3/8 9.53	0.63 15.88	2	250 1.72	2.25 57.15	0.12 0.18
00338708300	00338708398▲	1/2 12.70	0.75 19.05	2	250 1.72	3.00 76.20	0.16 0.24
Green							
00338804300▲	00338804398▲	1/4 6.35	0.50 12.70	2	250 1.72	1.50 38.10	0.09 0.13
00338806300	00338806398▲	3/8 9.53	0.63 15.88	2	250 1.72	2.25 57.15	0.12 0.18
00338808300▲	00338808398▲	1/2 12.70	0.75 19.05	2	250 1.72	3.00 76.20	0.16 0.24
Yellow							
00338904300▲	00338904398▲	1/4 6.35	0.50 12.70	2	250 1.72	1.50 38.10	0.09 0.13
00338906300▲	00338906398▲	3/8 9.53	0.63 15.88	2	250 1.72	2.25 57.15	0.12 0.18
00338908300▲	00338908398▲	1/2 12.70	0.75 19.05	2	250 1.72	3.00 76.20	0.16 0.24

▲ = Make To Order (MTO)

FLEX-LOC™ 300 PUSH-ON

Flex-Loc 300 is the state-of-the-art in push-on hose. Flex-Loc 300 was designed specifically for use with robotic welders and for use in any other industrial applications requiring MSHA approved flame resistant cover. Flex-Loc 300 allows push-on fittings to be inserted into place quickly and easily. No special crimping tools are needed. Flex-Loc has excellent coupling retention. The superior holding ability is created by a unique spiral yarn angle design and aramid fiber reinforcement that firmly grips the fitting from the inside. Fittings will not give even under full working pressure. Flex-Loc 300 is a premium 300 psi high oil resistant, non-conductive push-on hose that will provide smooth, safe performance in oily and harsh conditions.

Note: Not recommended for unleaded gasoline.



Resistance:



Branding:

Thermoid – Flex-Loc 300 –
Non-conductive Size 300 PSI WP –
Made In USA MSHA 1C

- Cover Color:** Black, Blue, Gray, Red, Green or Yellow
- Oil Resistance:** High
- Construction:** Non-conductive
- Tube:** Nitrile, RMA Class A
- Cover:** Nitrile/PVC RMA Class A
- Reinforcement:** Spiral aramid yarn
- Temperature Range:** -30°F to +180°F
-34°C to +82°C
- Packaging:** Reels – 700 ft.

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Black											
00318404400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318406400	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318408400	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
00318410400	5/8	15.88	0.91	23.02	2	300	2.07	3.75	95.25	0.23	0.34
00318412400	3/4	19.05	1.03	26.19	2	300	2.07	4.50	114.30	0.26	0.39
Blue											
00318504400▲	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318506400▲	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318508400▲	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
Gray											
00318604400▲	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318606400▲	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318608400▲	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
Red											
00318704400▲	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318706400▲	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318708400▲	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
Green											
00318804400▲	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318806400▲	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318808400▲	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
Yellow											
00318904400▲	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318906400▲	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318908400▲	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24

▲ = Make To Order (MTO)

EXCALIBUR™ MULTIPURPOSE

Excalibur is a highly versatile multipurpose hose designed for high pressure, extreme temperatures and working environments. Excalibur is ideal for use in air, water or petroleum applications in heavy construction, mining or quarry operations. It also provides superior service for washer operations in meat and poultry plants or agricultural sprays. Excalibur is **non-conductive**, flame resistant and is MSHA approved with a Class A RMA rating. Excalibur has a spiral polyester yarn construction that maximizes flexibility and strength while providing a constant 500 psi working pressure. A highly visible yellow, NBR/PVC blend cover provides excellent resistance to fats, oils, kerosene and gasoline. Excalibur provides smooth, constant performance in temperatures ranging from -40°F to +212°F. The cover is not as abrasion resistant as our Hercules hose, but provides economical value in high pressure applications.



Resistance:



Branding:

Thermod Excalibur Multipurpose Hose Size I.D. 500 PSI WP MSHA 1C-114/1 Made In USA Electrically Non-conductive

- Cover Color:** Yellow
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR/PVC, RMA Class A
 - Cover:** NBR/PVC, RMA Class A, MSHA Approved
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -40°F to +212°F
-40°C to +100°C
- Packaging:** Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22574168662▲	1/4	6.35	0.63	15.88	4	500	3.45	1.50	38.10	0.16	0.24
22574248662	3/8	9.53	0.75	19.05	4	500	3.45	2.25	57.15	0.22	0.33
22574328662	1/2	12.70	0.91	23.02	4	500	3.45	3.00	76.20	0.24	0.36
22574488662	3/4	19.05	1.19	30.16	4	500	3.45	4.50	114.30	0.37	0.55
22574648662	1	25.40	1.50	38.10	4	500	3.45	7.00	177.80	0.51	0.76

▲ = Make To Order (MTO)

HERCULES® 500 MULTIPURPOSE

Hercules 500 is a multipurpose hose that is durable enough to stand up to the toughest construction job. Engineered to withstand harsh conditions, Hercules 500 is an extremely abrasion resistant hose that is ideal for use in agriculture, factory, foundry, mining, quarry and many other industrial applications. Hercules 500 is non-conductive and MSHA approved with a Class A RMA rating. Hercules 500 has a spiral polyester yarn construction that maximizes flexibility and strength while providing a constant 500 psi working pressure and a 4:1 burst safety factor. A highly visible, fluorescent yellow, carboxylated NBR/PVC blend cover provides superior resistance to abrasion, oils and other petroleum based products. These features make Hercules 500 ideal for extra heavy duty pneumatic use or for the transfer of many liquids, including oils, fats, kerosene, gasoline and solvents in temperatures ranging from -40°F to +212°F.



Resistance:



Branding:

Thermod Hercules Multipurpose Hose Size I.D. 500 PSI WP MSHA 1C-114/1 Made In USA Non-conductive

- Cover Color:** Yellow
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR/PVC, RMA Class A
 - Cover:** NBR/PVC, carboxylated nitrile blend RMA Class A
 - Reinforcement:** 4-spiral polyester yarn - 1/4", 3/8", 1/2" sizes
- Temperature Range:** -40°F to +212°F
-40°C to +100°C
- Packaging:** Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22454168662	1/4	6.35	0.63	15.88	4	500	3.45	1.50	38.10	0.14	0.21
22454248662	3/8	9.53	0.75	19.05	4	500	3.45	2.25	57.15	0.21	0.31
22454328662	1/2	12.70	0.91	23.02	4	500	3.45	3.00	76.20	0.24	0.36
22454488662	3/4	19.05	1.19	30.16	4	500	3.45	4.50	114.30	0.36	0.54
22454648662	1	25.40	1.50	38.10	4	500	3.45	7.00	177.80	0.51	0.76
22454808662	1-1/4	31.75	1.75	44.45	4	500	3.45	8.75	222.25	0.66	0.98
22454968662	1-1/2	38.10	2.09	53.18	4	500	3.45	10.50	266.70	0.70	1.04

HERCULES® 1000 MULTIPURPOSE

Hercules 1000 is a highly versatile, multipurpose hose designed for super high pressure, extreme temperatures and working environments. Hercules 1000 is ideal for use in rock drilling, air hammer and water jetting applications in heavy construction, mining or quarry operations. It also provides superior service for washer operations in meat and poultry plants or agricultural sprays as well as for use in the transfer of petroleum or other solvent solutions. Hercules 1000 is non-conductive and is MSHA approved with a Class A RMA rating. Hercules 1000 has spiral polyester wrap construction that maximizes flexibility and strength while providing a constant 1000 psi working pressure. Hercules 1000 has a minimum 4:1 burst safety factor. A highly visible, fluorescent yellow, carboxylated NBR/PVC blend cover provides superior resistance to abrasion, oils, fats, kerosene, and gasoline. Hercules 1000 provides smooth, constant performance in temperatures ranging from -40°F to +212°F.



Resistance:
Branding:
Thermoid Hercules 1000 Multipurpose Hose Size I.D. 1000 PSI WP MSHA 1C-114/1 Made In USA Non-conductive

Cover Color:	Yellow
Oil Resistance:	High
Construction:	
Tube:	NBR/PVC, RMA Class A
Cover:	NBR/PVC, carboxylated nitrile blend RMA Class A (Pin Pricked)
Reinforcement:	4-spiral polyester yarn - 1/4", 3/8", 1/2" sizes 4-spiral aramid fiber - 3/4" and 1" sizes
Temperature Range:	-40°F to +212°F -40°C to +100°C
Packaging:	Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22544168662▲	1/4	6.35	0.63	15.88	4	1000	6.89	1.50	38.10	0.16	0.24
22544248662	3/8	9.53	0.75	19.05	4	1000	6.89	2.25	57.15	0.22	0.33
22544328662	1/2	12.70	0.94	23.81	4	1000	6.89	3.00	76.20	0.24	0.36
22544488662	3/4	19.05	1.13	28.58	4	1000	6.89	4.50	114.30	0.35	0.52
22544648662	1	25.40	1.50	38.10	4	1000	6.89	7.00	177.80	0.47	0.70

▲ = Make To Order (MTO)

GLACIER™ MULTIPURPOSE

Glacier is a cold weather hose specifically engineered for use in sub-zero applications. This involves air, oil, gasoline, diesel, kerosene, fuel oil and some chemicals. Even at temperatures as low as -65°F, Glacier keeps its flexibility, resists kinks and maintains its easy-reeling characteristics. Glacier has oil resistant, synthetic rubber tube that is reinforced with a spiraled high tensile polyester cord. These features combine to provide a constant working pressure of 300 psi and a 4:1 burst safety factor. Glacier's blue synthetic rubber cover is designed for maximum abrasion resistance. Glacier comes in a variety of sizes. The Glacier hose is designed to operate effectively and remain easy to handle and reel in temperatures ranging from -65°F to +180°F.



Resistance:
Branding:
Thermoid Glacier MP Hose Size I.D. WP Made In USA

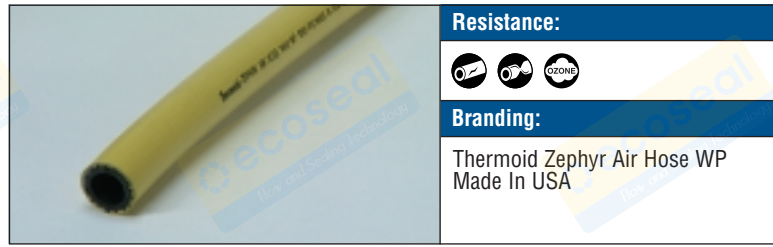
Cover Color:	Blue
Oil Resistance:	High
Construction:	
Tube:	ECO low temperature oil resistant synthetic rubber RMA Class A
Cover:	ECO low temperature oil resistant synthetic rubber RMA Class A
Reinforcement:	Spiral polyester yarn
Temperature Range:	-65°F to +180°F -54°C to +82°C
Packaging:	Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22554166662▲	1/4	6.35	0.63	15.88	4	300	2.07	1.50	38.10	0.15	0.22
22554246662	3/8	9.53	0.75	19.05	4	300	2.07	2.25	57.15	0.21	0.31
22554326662	1/2	12.70	0.94	23.81	4	300	2.07	3.00	76.20	0.30	0.45
22554486662	3/4	19.05	1.25	31.75	4	300	2.07	4.50	114.30	0.39	0.58
22554646662	1	25.40	1.50	38.10	4	300	2.07	7.00	177.80	0.49	0.73
22554806662	1-1/4	31.75	1.78	45.24	4	300	2.07	8.75	222.25	0.61	0.91
22554886662▲	1-3/8	34.93	1.88	47.63	4	300	2.07	9.25	234.95	0.68	1.01
22554966662	1-1/2	38.10	2.09	53.18	4	300	2.07	10.50	266.70	0.83	1.23

▲ = Make To Order (MTO)

ZEPHYR™ AIR

Zephyr is an industrial strength high-pressure, wire-braid air hose. It is well suited for multiple uses in air tool and air activated equipment. It has applications for use in either construction or industrial environments. Zephyr Air hose features a variety of hose construction designs, sizes and working pressures to fit your application. In the 1/2" I.D. to 1" I.D. sizes, Zephyr features a SBR/NBR tube. In 1-1/4" I.D. or larger sizes, Zephyr has an EPDM tube. All hose sizes are reinforced with heavy-duty, spiral wire braids to provide excellent strength and durability. Zephyr's cover consists of a NBR/PVC compound in the 1/2" I.D. to 1" I.D. sizes. EPDM is the cover compound for sizes 1-1/4" I.D. and larger. All hose sizes have a distinct yellow cover that is abrasion, kink and ozone resistant. Zephyr Air hose provides a dependable and constant working pressure. Zephyr has 3 different working pressure ranges to select from, including 500, 650 or 1000 psi. This durable, high-pressure air hose delivers smooth, trouble-free performance. It is available in sizes and lengths to fit your requirements.



Resistance:



Branding:

Thermod Zephyr Air Hose WP
Made In USA

- Cover Color:** Yellow
- Oil Resistance:** Determined by size
- Construction:**
 - Tube:** SBR/NBR, RMA Class C: 1/2" to 1" EPDM, RMA Class C: 1-1/4" and over
 - Cover:** NBR/PVC, RMA Class A: 1/2" to 1" EPDM, RMA Class C: 1-1/4" and over
 - Reinforcement:** One or multiple wire braids
 - Temperature Range:** -40°F to +180°F
-40°C to +82°C
 - Packaging:** 50 ft. lengths – all sizes; Reels – 1/2" to 1"

Product Number	Nominal I.D.		Nominal O.D.		Braids	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22441328662	1/2	12.70	0.81	20.64	1	1000	6.89	3.00	76.20	0.32	0.48
22441488662	3/4	19.05	1.13	28.58	1	1000	6.89	4.50	114.30	0.44	0.65
22441648662	1	25.40	1.38	34.93	1	1000	6.89	7.00	177.80	0.77	1.15
01014444502▲	1-1/4	31.75	1.81	46.04	1	650	4.48	8.75	222.25	0.90	1.34
01014445502	1-1/2	38.10	2.00	50.80	1	500	3.45	10.50	266.70	1.00	1.49
01014446502	2	50.80	2.50	63.50	2	500	3.45	14.00	355.60	1.40	2.08

▲ = Make To Order (MTO)

BLACK STANDARD HEATER & BLACK OEM HEATER SAE 20R3, CLASS D2 TYPE

Kink-resistant EPDM tube and cover resist cracking and weather checking. Multi-spiral polyester reinforced to stay flexible even in extreme temperatures. Long service life since hoses can withstand the abuse of corrosive additives, ozone and abrasion. Series 4703 is SAE 20R3, Class D2. Series 4709 is standard duty heater hose.



Resistance:



Branding:

4703 Thermod (Size) OEM Heater Hose Made In USA
4709 Thermod (Size) Heater Hose Made In USA

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
-40°C to +93°C
Packaging: Reels, †50 ft. length – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00470308151†▲	1/2	12.70	0.80	20.24	2	62	0.43	3.00	76.20	0.18	0.27
00470310199	5/8	15.88	0.94	23.81	2	62	0.43	3.75	95.25	0.22	0.33
00470310151†▲	5/8	15.88	0.94	23.81	2	62	0.43	3.75	95.25	0.22	0.33
00470312199	3/4	19.05	1.06	26.99	2	50	0.34	4.50	114.30	0.25	0.37
00470312151†▲	3/4	19.05	1.06	26.99	2	50	0.34	4.50	114.30	0.25	0.37
00470316199▲	1	25.40	1.34	34.13	2	44	0.30	7.00	177.80	0.38	0.57
00470316151†▲	1	25.40	1.34	34.13	2	44	0.30	7.00	177.80	0.38	0.57
00470908199	1/2	12.70	0.81	20.64	2	35	0.24	3.00	76.20	0.16	0.24
00470908151†▲	1/2	12.70	0.81	20.64	2	35	0.24	3.00	76.20	0.16	0.24
00470910199	5/8	15.88	0.88	22.23	2	35	0.24	3.75	95.25	0.20	0.30
00470910151†▲	5/8	15.88	0.88	22.23	2	35	0.24	3.75	95.25	0.20	0.30
00470912199	3/4	19.05	1.03	26.19	2	35	0.24	4.50	114.30	0.23	0.34
00470912151†	3/4	19.05	1.03	26.19	2	35	0.24	4.50	114.30	0.23	0.34
00470916199	1	25.40	1.34	34.13	2	25	0.17	7.00	177.80	0.39	0.58
00470916151†	1	25.40	1.34	34.13	2	25	0.17	7.00	177.80	0.39	0.58

▲ = Make To Order (MTO)
† = 50 ft. length – 1 per carton

AIR BRAKE, TYPE A - SAE J1402 & DOT FMVSS 106

Air Brake hose is designed for conveying air in truck and trailer brake systems. Truck and trailer manufacturers, aftermarket packagers and wholesalers use this hose. It is certified to meet D.O.T. FMVSS 106 and SAE J1402A requirements. The EPDM tube and cover with the 4-spiral reinforcement make this hose virtually kink proof. This hose is durable enough to handle this safety related application.



Resistance:



Branding:

Air Brake 3/8" A SAE J1402 Made In USA D.O.T. KX 3/8 (9.5mm) A
Air Brake 1/2" SP A SAE J1402 Made In USA D.O.T. KX 1/2" SP (12.7mm) A

Cover Color: Black
Oil Resistance: Medium
Construction:
Tube: EPDM, RMA Class C
Cover: EPDM, RMA Class C
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
-40°C to +93°C
Packaging: † Maximum 2 pc. 250 ft. reel, **50 ft. length – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00482106499	3/8	9.53	0.75	19.05	4	Min. Burst 900	6.20	2.25	57.15	0.17	0.25
00482106498†	3/8	9.53	0.75	19.05	4	Min. Burst 900	6.20	2.25	57.15	0.17	0.25
00482106451**	3/8	9.53	0.75	19.05	4	Min. Burst 900	6.20	2.25	57.15	0.17	0.25
00482108500	1/2	12.70	0.88	22.23	4	Min. Burst 900	6.20	3.00	76.20	0.20	0.30
00482108498†	1/2	12.70	0.88	22.23	4	Min. Burst 900	6.20	3.00	76.20	0.20	0.30
00482108451**	1/2	12.70	0.88	22.23	4	Min. Burst 900	6.20	3.00	76.20	0.20	0.30

† = Maximum 2 pc. 250 ft. reel ** = 50 ft. length – 1 per carton

FUEL LINE, VAPOR EMISSION & CRANKCASE VENTILATION - SIMILAR TO SAE 30R7

This durable, quality-made hose meets and/or exceeds all SAE J30R7 specifications. It is used for conveying most current types of fuels in automobiles, trucks and buses. This hose is also an aftermarket standard. It provides excellent service for original equipment, wholesalers, aftermarket packagers and auxiliary tank manufacturers. This hose provides superior temperature service and operates in a wide range from -29°F to +257°F. It features an NBR tube and an NBR/PVC cover reinforced with multiple spiral polyester. This combination helps keep the hose flexible while standing up to oil, grease, ozone and under-hood temperatures generated by today's automotive engines. It is available in a variety of sizes and packaging options to suit your application.



Resistance:



Branding:

Size SAE 30R7-KX Date
Made In USA

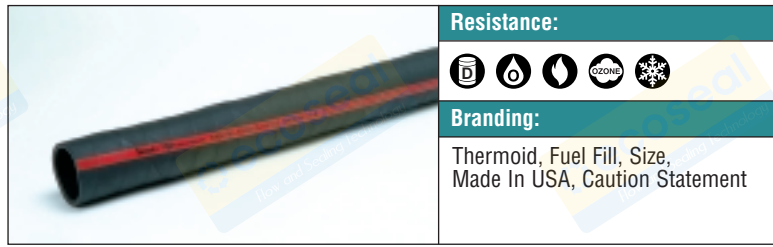
- Cover Color:** Black
- Oil Resistance:** Medium-High
- Construction:**
 - Tube:** NBR, RMA Class A
 - Cover:** NBR/PVC, RMA Class B
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -29°F to +257°F
-34°C to +125°C
- Packaging:** 25 ft. lengths – 10 lengths per master carton
50 ft. lengths – 5 lengths per master carton
250 ft. reel – maximum 2 lengths per reel
700 ft. reel – maximum 2 lengths per reel

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
25 ft. Coil											
00667503225▲	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504225▲	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505225▲	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506225▲	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18
50 ft. Coil											
00667503252▲	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504252▲	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505252▲	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506252▲	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18
250 ft. Reel											
00667503298▲	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504298	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505298	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506298	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18
700 ft. Reel											
00667503299	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504299	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505299	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506299	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18

▲ = Make To Order (MTO)

1158 SOFTWALL AROMATIC FUEL SAE 30R2 TYPE 2

This hose is an excellent multipurpose hose which is designed for use in fuel transfer applications, such as, filler neck, where aromatic fuel resistance is required. This hose features a neoprene cover that is oil, heat, and ozone resistant.



- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR
 - Cover:** CR
 - Reinforcement:** Tire cord
- Temperature Range:** -40°F to +212°F
-40°C to +100°C
- Packaging:** Make to Order (MTO)
Contact Salisbury for details
6 ft., 12 ft and 60 ft. lengths available
1/2" and 5/8" I.D. – 25 ft. maximum
Other lengths – 5% cutting charge

Product Number 6 Feet	Product Number 12 Feet	Product Number 60 Feet	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Plies	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)
16115805006▲	16115805012▲	16115805025▲	1/2 12.70	1.00 25.40	2	175 1.21	n/a n/a	0.36 0.54
16115806206▲	16115806212▲	16115806225▲	5/8 15.88	1.13 28.58	2	125 0.86	n/a n/a	0.41 0.61
16115807506▲	16115807512▲	16115807560▲	3/4 19.05	1.25 31.75	2	125 0.86	n/a n/a	0.46 0.68
16115808706	16115808712	16115808760	7/8 22.23	1.38 34.93	2	125 0.86	n/a n/a	0.52 0.77
16115810006	16115810012	16115810060	1 25.40	1.50 38.10	2	125 0.86	n/a n/a	0.59 0.88
16115811206▲	16115811212▲	16115811260▲	1-1/8 28.58	1.63 41.28	2	100 0.69	n/a n/a	0.62 0.92
16115812506	16115812512	16115812560	1-1/4 31.75	1.75 44.45	2	100 0.69	n/a n/a	0.68 1.01
16115813706▲	16115813712▲	16115813760▲	1-3/8 34.93	1.88 47.63	2	100 0.69	n/a n/a	0.73 1.09
16115815006	16115815012	16115815060	1-1/2 38.10	2.00 50.80	2	100 0.69	n/a n/a	0.79 1.18
16115816206▲	16115816212	16115816260	1-5/8 41.28	2.13 53.98	2	62 0.43	n/a n/a	0.84 1.25
16115817506	16115817512	16115817560	1-3/4 44.45	2.25 57.15	2	62 0.43	n/a n/a	0.90 1.34
16115818706	16115818712	16115818760	1-7/8 47.63	2.38 60.33	2	62 0.43	n/a n/a	0.95 1.41
16115820006	16115820012	16115820060	2 50.80	2.50 63.50	2	62 0.43	n/a n/a	1.00 1.49
16115821206▲	16115821212▲	16115821260▲	2-1/8 53.98	2.63 66.68	2	62 0.43	n/a n/a	1.06 1.58
16115822506	16115822512	16115822560	2-1/4 57.15	2.75 69.85	2	50 0.34	n/a n/a	1.11 1.65
16115823706	16115823712	16115823760	2-3/8 60.33	2.88 73.03	2	50 0.34	n/a n/a	1.17 1.74
16115825006	16115825012	16115825060	2-1/2 63.50	3.00 76.20	2	50 0.34	n/a n/a	1.22 1.82
16115826206▲	16115826212▲	16115826260▲	2-5/8 66.68	3.13 79.38	2	50 0.34	n/a n/a	1.27 1.89
16115827506▲	16115827512▲	16115827560▲	2-3/4 69.85	3.25 82.55	2	50 0.34	n/a n/a	1.33 1.98
16115828706	16115828712	16115828760	2-7/8 73.03	3.38 85.73	2	50 0.34	n/a n/a	1.39 2.07
16115830006	16115830012	16115830060	3 76.20	3.50 88.90	2	50 0.34	n/a n/a	1.44 2.14
16115831206▲	16115831212▲	16115831260▲	3-1/8 79.38	3.63 92.08	2	37 0.25	n/a n/a	1.49 2.22
16115832506▲	16115832512▲	16115832560▲	3-1/4 82.55	3.75 95.25	2	37 0.25	n/a n/a	1.55 2.31
16115835006	16115835012	16115835060	3-1/2 88.90	4.00 101.60	2	37 0.25	n/a n/a	1.66 2.47
16115837506▲	16115837512▲	16115837560▲	3-3/4 95.25	4.25 107.95	2	37 0.25	n/a n/a	1.76 2.62
16115840006▲	16115840012▲	16115840060▲	4 101.60	4.50 114.30	2	37 0.25	n/a n/a	1.87 2.78
16115842506▲	16115842512▲	16115842560▲	4-1/4 107.95	4.75 120.65	2	25 0.17	n/a n/a	1.98 2.95
16115845006▲	16115845012▲	16115845060▲	4-1/2 114.30	5.00 127.00	2	25 0.17	n/a n/a	2.09 3.11
16115850006▲	16115850012▲	16115850060▲	5 127.00	5.50 139.70	2	12 0.08	n/a n/a	2.31 3.44
16115855006▲	16115855012▲	16115855060▲	5-1/2 139.70	6.00 152.40	2	12 0.08	n/a n/a	2.52 3.75
16115860006▲	16115860012▲	16115860060▲	6 152.40	6.50 165.10	2	10 0.07	n/a n/a	2.74 4.08

▲ = Make To Order (MTO)
n/a = Not Applicable

AUTOMOTIVE/MARINE COOLANT Automotive – Air Brake, Fuel, Heater & Coolant

7318 SOFT WALL FUEL FILL SAE 30R7

Style 7318 is often used as a fill neck hose. It can carry leaded, unleaded, oxygenated fuels with aromatics of up to 30%, gasohol and diesel fuel. Applications for this hose include: passenger cars, light trucks, boats and auxiliary fuel tanks on RV's. The rugged construction helps prevent hose collapse. This hose meets all the requirements of the 30R7 specification.



Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR
Cover: CR
Reinforcement: Nylon screen
Temperature Range: -34°F to +257°F
 -37°C to +125°C
Packaging: 60 ft.
 Other lengths available – 5% cutting charge
 Contact customer service for minimum run requirements

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16731815060▲	1-1/2	38.10	1.87	47.50	2	35	0.24	n/a	n/a	0.62	0.92
16731817560	1-3/4	44.45	2.15	54.61	2	35	0.24	n/a	n/a	0.71	1.06
16731818760▲	1-7/8	47.63	2.25	57.15	2	35	0.24	n/a	n/a	0.76	1.13
16731820060	2	50.80	2.39	60.71	2	35	0.24	n/a	n/a	0.80	1.19
16731822560▲	2-1/4	57.15	2.67	67.82	2	35	0.24	n/a	n/a	0.93	1.38
16731823760▲	2-3/8	60.33	2.79	70.87	2	35	0.24	n/a	n/a	0.98	1.46

▲ = Make To Order (MTO)
 n/a = Not Applicable

GENERAL PURPOSE COOLANT & DISCHARGE 100 & 100A

This is an extremely popular "workhorse". This 2-ply hose is designed for use in engine cooling systems as a flexible connector between the engine and radiator. It is fabric reinforced and is intended for use as an upper radiator hose that operates under pressure only. It is available in virtually all the standard pipe sizes. Because of its versatility and durability, it is capable of being used in hundreds of industrial, automotive and marine applications. The tube is heat and coolant resistant. The carcass is made of 2-ply polyester cord construction.



Resistance:
Branding:
Thermod Coolant I.D. Made In USA foot and inch marks

- Cover Color:** Black
- Oil Resistance:** Medium to Medium-High
- Construction:**
 - Tube:** NBR/SBR
 - Cover:** CR/NBR blend
 - Reinforcement:** 2-ply polyester cord
- Temperature Range:** 0°F to +212°F
-18°C to +100°C
- Packaging:** Make to Order (MTO)
Contact Salisbury for details
3 ft. and 10 ft. lengths available
Other lengths – 5% cutting charge

Product Number 3 Feet	Product Number 10 Feet	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Plies	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)	Std. Case Ea. (3 ft)	Std. Case Ea. (10 ft)
16010006203	16010006210	5/8 15.88	1.00 25.40	2	56 0.39	n/a n/a	0.34 0.51	10	6
16010007503	16010007510	3/4 19.05	1.13 28.58	2	56 0.39	n/a n/a	0.37 0.55	10	6
16010008703	16010008710	7/8 22.23	1.25 31.75	2	56 0.39	n/a n/a	0.41 0.61	10	6
16010010003	16010010010	1 25.40	1.38 34.93	2	53 0.37	n/a n/a	0.45 0.67	10	5
16010011203	16010011210	1-1/8 28.58	1.50 38.10	2	53 0.37	n/a n/a	0.50 0.74	10	5
16010012503	16010012510	1-1/4 31.75	1.63 41.28	2	51 0.35	n/a n/a	0.54 0.80	10	5
16010013103▲	16010013110▲	1-5/16 33.34	1.69 42.86	2	51 0.35	n/a n/a	0.56 0.83	10	5
16010013703	16010013710	1-3/8 34.93	1.75 44.45	2	51 0.35	n/a n/a	0.58 0.86	10	5
16010015003	16010015010	1-1/2 38.10	1.88 47.63	2	49 0.34	n/a n/a	0.63 0.94	10	2
16010016203	16010016210	1-5/8 41.28	2.00 50.80	2	49 0.34	n/a n/a	0.67 1.00	10	2
16010017503	16010017510	1-3/4 44.45	2.13 53.98	2	48 0.33	n/a n/a	0.71 1.06	10	2
16010018703	16010018710	1-7/8 47.63	2.25 57.15	2	45 0.31	n/a n/a	0.76 1.13	10	2
16010020003	16010020010	2 50.80	2.38 60.33	2	45 0.31	n/a n/a	0.80 1.19	10	2
16010021203▲	16010021210▲	2-1/8 53.98	2.50 63.50	2	44 0.30	n/a n/a	0.84 1.25	6	2
16010022503	16010022510	2-1/4 57.15	2.63 66.68	2	43 0.30	n/a n/a	0.89 1.32	6	2
16010023703	16010023710	2-3/8 60.33	2.75 69.85	2	39 0.27	n/a n/a	0.93 1.38	6	2
16010025003	16010025010	2-1/2 63.50	2.88 73.03	2	39 0.27	n/a n/a	0.99 1.47	6	2
16010026203▲	16010026210▲	2-5/8 66.68	3.00 76.20	2	38 0.26	n/a n/a	1.02 1.52	6	2
16010027503	16010027510	2-3/4 69.85	3.13 79.38	2	38 0.26	n/a n/a	1.05 1.56	6	2
16010028703	16010028710	2-7/8 73.03	3.25 82.55	2	35 0.24	n/a n/a	1.11 1.65	6	2
16010030003	16010030010	3 76.20	3.38 85.73	2	33 0.23	n/a n/a	1.15 1.71	4	1
16010031203	16010031210	3-1/8 79.38	3.50 88.90	2	33 0.23	n/a n/a	1.20 1.79	4	1
16010032503▲	16010032510▲	3-1/4 82.55	3.63 92.08	2	33 0.23	n/a n/a	1.24 1.85	4	1
16010035003	16010035010	3-1/2 88.90	3.88 98.43	2	28 0.19	n/a n/a	1.33 1.98	4	1
16010037503▲	16010037510▲	3-3/4 95.25	4.13 104.78	2	25 0.17	n/a n/a	1.43 2.13	4	1
16010040003	16010040010	4 101.60	4.38 111.13	2	19 0.13	n/a n/a	1.51 2.25	4	1
16010042503▲	16010042510▲	4-1/4 107.95	4.63 117.48	2	18 0.12	n/a n/a	1.60 2.38	4	1
16010045003	16010045010	4-1/2 114.30	4.88 123.83	2	16 0.11	n/a n/a	1.69 2.52	4	1
16010047503▲	16010047510▲	4-3/4 120.65	5.13 130.18	2	16 0.11	n/a n/a	1.78 2.65	4	1
16010050003▲	16010050010▲	5 127.00	5.38 136.53	2	15 0.10	n/a n/a	1.87 2.78	2	1
16010055003▲	16010055010▲	5-1/2 139.70	5.88 149.23	2	14 0.10	n/a n/a	2.04 3.04	2	1
16010060003▲	16010060010▲	6 152.40	6.38 161.93	2	12 0.08	n/a n/a	2.22 3.30	2	1

▲ = Make To Order (MTO)
n/a = Not Applicable

AUTOMOTIVE/MARINE COOLANT Automotive – Air Brake, Fuel, Heater & Coolant

HEAVY DUTY COOLANT & DISCHARGE 101 & 101B

This multi-ply heavy-duty coolant and discharge hose is suitable for use in engine cooling systems on heavy equipment, buses, trucks or other applications where a heavy-duty hose is required. This hose can also be used as a general purpose discharge hose, a pipe connector, a conveyor of many types of products, vibration isolator in piping systems, etc. The tube is heat and coolant resistant. The cover is heat and ozone resistant.



Resistance:



Branding:

Thermod Coolant I.D.
Made In USA foot and inch marks

- Cover Color:** Black
- Oil Resistance:** Medium to Medium-High
- Construction:**
 - Tube:** NBR/SBR blend
 - Cover:** CR/NBR blend
 - Reinforcement:** 3-ply polyester cord
- Temperature Range:** 0°F to +212°F
-18°C to +100°C
- Packaging:** Make to Order (MTO)
Contact Salisbury for details
3 ft. and 12 ft. lengths available
Other lengths – 5% cutting charge

Product Number 3 Feet	Product Number 12 Feet	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Plies	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)	Std. Case Ea. (3 ft)	Std. Case Ea. (12 ft)
16010106203▲	16010106212▲	5/8 15.88	1.13 28.58	3	56 0.39	n/a n/a	0.46 0.68	10	6
16010107503▲	16010107512▲	3/4 19.05	1.25 31.75	3	56 0.39	n/a n/a	0.50 0.74	10	6
16010108703▲	16010108712▲	7/8 22.23	1.38 34.93	3	56 0.39	n/a n/a	0.54 0.80	10	6
16010110003▲	16010110012▲	1 25.40	1.50 38.10	3	88 0.61	n/a n/a	0.59 0.88	10	6
16010111203▲	16010111212▲	1-1/8 28.58	1.63 41.28	3	88 0.61	n/a n/a	0.65 0.97	10	6
16010112503	16010112512	1-1/4 31.75	1.75 44.45	3	88 0.61	n/a n/a	0.70 1.04	10	6
16010113103▲	16010113112▲	1-5/16 33.34	1.81 46.04	3	88 0.61	n/a n/a	0.73 1.09	10	6
16010113703▲	16010113712▲	1-3/8 34.93	1.88 47.63	3	88 0.61	n/a n/a	0.75 1.12	10	5
16010115003	16010115012	1-1/2 38.10	2.00 50.80	3	81 0.56	n/a n/a	0.81 1.21	10	2
16010116203	16010116212	1-5/8 41.28	2.13 53.98	3	81 0.56	n/a n/a	0.86 1.28	10	2
16010117503	16010117512	1-3/4 44.45	2.25 57.15	3	81 0.56	n/a n/a	0.91 1.35	10	2
16010118703▲	16010118712▲	1-7/8 47.63	2.38 60.33	3	75 0.52	n/a n/a	0.97 1.44	10	2
16010120003	16010120012	2 50.80	2.50 63.50	3	75 0.52	n/a n/a	1.02 1.52	10	1
16010121203▲	16010121212▲	2-1/8 53.98	2.63 66.68	3	75 0.52	n/a n/a	1.08 1.61	10	1
16010122503▲	16010122512▲	2-1/4 57.15	2.75 69.85	3	70 0.48	n/a n/a	1.13 1.68	10	1
16010123703	16010123712	2-3/8 60.33	2.88 73.03	3	70 0.48	n/a n/a	1.19 1.77	6	1
16010125003	16010125012	2-1/2 63.50	3.00 76.20	3	68 0.47	n/a n/a	1.24 1.85	6	1
16010126203▲	16010126212▲	2-5/8 66.68	3.13 79.38	3	62 0.43	n/a n/a	1.30 1.93	6	1
16010127503▲	16010127512▲	2-3/4 69.85	3.25 82.55	3	62 0.43	n/a n/a	1.35 2.01	6	1
16010128703▲	16010128712▲	2-7/8 73.03	3.38 85.73	3	62 0.43	n/a n/a	1.41 2.10	6	1
16010130003	16010130012	3 76.20	3.50 88.90	3	58 0.40	n/a n/a	1.46 2.17	4	1
16010131203▲	16010131212▲	3-1/8 79.38	3.63 92.08	3	55 0.38	n/a n/a	1.51 2.25	4	1
16010132503▲	16010132512▲	3-1/4 82.55	3.75 95.25	3	53 0.37	n/a n/a	1.57 2.34	4	1
16010135003	16010135012	3-1/2 88.90	4.00 101.60	3	50 0.34	n/a n/a	1.68 2.50	4	1
16010137503▲	16010137512▲	3-3/4 95.25	4.13 104.78	3	50 0.34	n/a n/a	1.80 2.68	4	1
16010140003▲	16010140012▲	4 101.60	4.50 114.30	3	45 0.31	n/a n/a	1.90 2.83	4	1
16010142503▲	16010142512▲	4-1/4 107.95	4.75 120.65	3	43 0.30	n/a n/a	2.01 2.99	4	1
16010145003▲	16010145012▲	4-1/2 114.30	5.00 127.00	3	41 0.28	n/a n/a	2.12 3.16	4	1
16010147503▲	16010147512▲	4-3/4 120.65	5.25 133.35	3	41 0.28	n/a n/a	2.22 3.30	4	1
16010150003▲	16010150012▲	5 127.00	5.50 139.70	3	36 0.25	n/a n/a	2.31 3.44	1	1
16010155003▲	16010155012▲	5-1/2 139.70	6.00 152.40	3	34 0.23	n/a n/a	2.55 3.80	1	1
16010160003▲	16010160012▲	6 152.40	6.50 165.10	3	30 0.21	n/a n/a	2.77 4.12	1	1

▲ = Make To Order (MTO)
n/a = Not Applicable

2012 STANDARD WALL 3/16" COOLANT SAE 20R1

Type 2012 hose is used where heavy-duty service is required for engine cooling systems such as Class 7 & 8 trucks and off-road equipment. Type 2012 can also be used as a general purpose discharge hose and for many other applications. The Class B tube, Class C cover and tire cord reinforcement fight the most corrosive elements in diesel engines, such as, oil, coolants, coolant additives and heat. This hose meets the requirements of the SAE J20R1, Class B tube, Class C cover standard wall construction specification.

Note: This hose is not suitable for oil or fuel transfer.



Resistance:



Branding:

Similar to SAE 20R1, Standard Wall

Cover Color: Black
Oil Resistance: Medium to Medium-High
Construction:
Tube: Class B
Cover: Class C
Reinforcement: Tire cord
Temperature Range: -65°F to +212°F
 -54°C to +100°C
Packaging: Make to Order (MTO)
 Contact Salisbury for details
 12 ft. and 60 ft. lengths available
 1/2" and 5/8" I.D.s are 25 ft. maximum
 Other lengths – 5% cutting charge

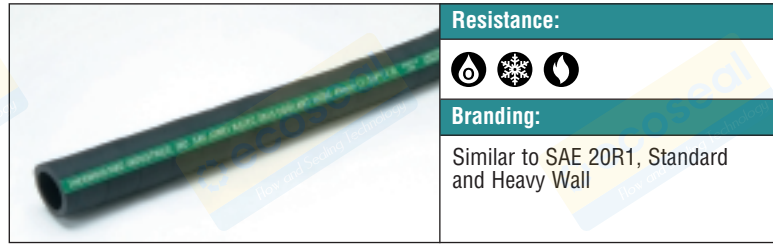
Product Number 12 Feet	Product Number 60 Feet	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Plies	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)
16201205012▲	16201205025▲	1/2 12.70	0.88 22.23	2	106 0.73	n/a n/a	0.29 0.43
16201206212	16201206225	5/8 15.88	1.00 25.40	2	94 0.65	n/a n/a	0.31 0.46
16201207512▲	16201207560▲	3/4 19.05	1.13 28.58	2	81 0.56	n/a n/a	0.36 0.54
16201208712	16201208760	7/8 22.23	1.25 31.75	2	81 0.56	n/a n/a	0.39 0.58
16201210012▲	16201210060▲	1 25.40	1.38 34.93	2	75 0.52	n/a n/a	0.43 0.64
16201211212	16201211260	1-1/8 28.58	1.50 38.10	2	75 0.52	n/a n/a	0.48 0.71
16201212512	16201212560	1-1/4 31.75	1.63 41.28	2	69 0.48	n/a n/a	0.52 0.77
16201213712▲	16201213760▲	1-3/8 34.93	1.75 44.45	2	69 0.48	n/a n/a	0.55 0.82
16201215012	16201215060	1-1/2 38.10	1.88 47.63	2	69 0.48	n/a n/a	0.58 0.86
16201216212▲	16201216260▲	1-5/8 41.28	2.06 52.39	2	69 0.48	n/a n/a	0.63 0.94
16201217512	16201217560	1-3/4 44.45	2.25 57.15	2	69 0.48	n/a n/a	0.71 1.06
16201218712▲	16201218760▲	1-7/8 47.63	2.25 57.15	2	50 0.34	n/a n/a	0.72 1.07
16201220012	16201220060	2 50.80	2.38 60.33	2	50 0.34	n/a n/a	0.77 1.15
16201221212▲	16201221260▲	2-1/8 53.98	2.50 63.50	2	47 0.32	n/a n/a	0.82 1.22
16201222512	16201222560	2-1/4 57.15	2.63 66.68	2	44 0.30	n/a n/a	0.86 1.28
16201223712▲	16201223760▲	2-3/8 60.33	2.75 69.85	2	44 0.30	n/a n/a	0.91 1.35
16201225012	16201225060	2-1/2 63.50	2.88 73.03	2	38 0.26	n/a n/a	0.95 1.41
16201227512	16201227560	2-3/4 69.85	3.13 79.38	2	31 0.21	n/a n/a	1.04 1.55
16201230012▲	16201230060▲	3 76.20	3.38 85.73	2	25 0.17	n/a n/a	1.12 1.67
16201231212▲	16201231260▲	3-1/8 79.38	3.50 88.90	2	18 0.12	n/a n/a	1.17 1.74
16201232512▲	16201232560▲	3-1/4 82.55	3.63 92.08	2	18 0.12	n/a n/a	1.21 1.80
16201235012▲	16201235060▲	3-1/2 88.90	3.88 98.43	2	19 0.13	n/a n/a	1.29 1.92
16201237512▲	16201237560▲	3-3/4 95.25	4.13 104.78	2	13 0.09	n/a n/a	1.38 2.05
16201240012▲	16201240060▲	4 101.60	4.38 111.13	2	13 0.09	n/a n/a	1.47 2.19
16201242512▲	16201242560▲	4-1/4 107.95	4.63 117.48	2	13 0.09	n/a n/a	1.55 2.31
16201245012▲	16201245060▲	4-1/2 114.30	4.88 123.83	2	13 0.09	n/a n/a	1.64 2.44
16201250012▲	16201250060▲	5 127.00	5.38 136.53	2	13 0.09	n/a n/a	1.82 2.71
16201255012▲	16201255060▲	5-1/2 139.70	5.88 149.23	2	13 0.09	n/a n/a	1.99 2.96
16201260012▲	16201260060▲	6 152.40	6.38 161.93	2	13 0.09	n/a n/a	2.16 3.21

▲ = Make To Order (MTO)
 n/a = Not Applicable

2015 HEAVY WALL 1/4" COOLANT SAE 20R1

Type 2015 hose is used where heavy-duty service is required for engine cooling systems such as Class 7 & 8 trucks, marine and off-road equipment. Type 2015 can also be used as a general purpose discharge hose and for many other applications. The Class B tube, Class C cover and tire cord reinforcement fight the most corrosive elements in diesel engines, such as, oil, coolants, coolant additives and heat. This hose meets the requirements of the SAE J20R1, Class B tube, Class C cover heavy wall construction specification.

Note: This hose is not suitable for oil or fuel transfer.



Resistance:



Branding:

Similar to SAE 20R1, Standard and Heavy Wall

- Cover Color:** Black
- Oil Resistance:** Medium-High
- Construction:**
 - Tube:** Class B
 - Cover:** Class C
 - Reinforcement:** Tire cord
- Temperature Range:** -65°F to +212°F
-54°C to +100°C
- Packaging:** Make to Order (MTO)
Contact Salisbury for details
12 ft. and 60 ft. lengths available
1/2" and 5/8" I.D.s are 25 ft. maximum
Other lengths – 5% cutting charge

Product Number 12 Feet	Product Number 60 Feet	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Plies	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)
16201505012▲	16201505025▲	1/2 12.70	1.00 25.40	2	125 0.86	n/a n/a	0.38 0.57
16201506212▲	16201506225▲	5/8 15.88	1.13 28.58	2	125 0.86	n/a n/a	0.44 0.65
16201507512▲	16201507560▲	3/4 19.05	1.25 31.75	2	125 0.86	n/a n/a	0.49 0.73
16201508712▲	16201508760▲	7/8 22.23	1.38 34.93	2	125 0.86	n/a n/a	0.56 0.83
16201510012▲	16201510060▲	1 25.40	1.50 38.10	2	125 0.86	n/a n/a	0.61 0.91
16201511212▲	16201511260▲	1-1/8 28.58	1.63 41.28	2	125 0.86	n/a n/a	0.67 1.00
16201512512▲	16201512560▲	1-1/4 31.75	1.75 44.45	2	125 0.86	n/a n/a	0.72 1.07
16201513712▲	16201513760▲	1-3/8 34.93	1.88 47.63	2	112 0.77	n/a n/a	0.77 1.15
16201515012▲	16201515060▲	1-1/2 38.10	2.00 50.80	2	113 0.78	n/a n/a	0.85 1.27
16201516212▲	16201516260▲	1-5/8 41.28	2.13 53.98	2	106 0.73	n/a n/a	0.91 1.35
16201517512▲	16201517560▲	1-3/4 44.45	2.25 57.15	2	100 0.69	n/a n/a	0.97 1.44
16201518712▲	16201518760▲	1-7/8 47.63	2.38 60.33	2	94 0.65	n/a n/a	1.03 1.53
16201520012▲	16201520060▲	2 50.80	2.50 63.50	2	88 0.61	n/a n/a	1.09 1.62
16201521212▲	16201521260▲	2-1/8 53.98	2.63 66.68	2	87 0.60	n/a n/a	1.14 1.70
16201522512▲	16201522560▲	2-1/4 57.15	2.75 69.85	2	88 0.61	n/a n/a	1.20 1.79
16201523712▲	16201523760▲	2-3/8 60.33	2.88 73.03	2	75 0.52	n/a n/a	1.26 1.88
16201525012▲	16201525060▲	2-1/2 63.50	3.00 76.20	2	75 0.52	n/a n/a	1.32 1.96
16201526212▲	16201526260▲	2-5/8 66.68	3.13 79.38	2	62 0.43	n/a n/a	1.38 2.05
16201527512▲	16201527560▲	2-3/4 69.85	3.25 82.55	2	63 0.43	n/a n/a	1.44 2.14
16201528712▲	16201528760▲	2-7/8 70.61	3.38 85.73	2	62 0.43	n/a n/a	1.50 2.23
16201530012▲	16201530060▲	3 76.20	3.50 88.90	2	63 0.43	n/a n/a	1.56 2.32
16201531212▲	16201531260▲	3-1/8 79.38	3.63 92.08	2	50 0.34	n/a n/a	1.61 2.40
16201532512▲	16201532560▲	3-1/4 82.55	3.75 95.25	2	50 0.34	n/a n/a	1.67 2.49
16201535012▲	16201535060▲	3-1/2 88.90	4.00 101.60	2	50 0.34	n/a n/a	1.79 2.66
16201537512▲	16201537560▲	3-3/4 95.25	4.25 107.95	2	38 0.26	n/a n/a	1.90 2.83
16201540012▲	16201540060▲	4 101.60	4.51 114.55	2	38 0.26	n/a n/a	2.02 3.01
16201542512▲	16201542560▲	4-1/4 107.95	4.76 120.90	2	37 0.25	n/a n/a	2.13 3.17
16201545012▲	16201545060▲	4-1/2 114.30	5.01 127.25	2	37 0.25	n/a n/a	2.25 3.35
16201550012▲	16201550060▲	5 127.00	5.51 139.95	2	25 0.17	n/a n/a	2.48 3.69
16201555012▲	16201555060▲	5-1/2 139.70	6.01 152.65	2	25 0.17	n/a n/a	2.71 4.03
16201560012▲	16201560060▲	6 152.40	6.51 165.35	2	25 0.17	n/a n/a	2.95 4.39

▲ = Make To Order (MTO)
n/a = Not Applicable

3003 SILICONE COOLANT STANDARD WALL 3/16"

Type 3003 Silicone Coolant hose is recommended for those heavy-duty applications such as Class 7 & 8 trucks and off-road equipment. The silicone tube and cover makes this hose tough and resistant to extreme heat (up to +347°F), chemicals, oils and other elements that attack coolant hoses in heavy-duty applications. This hose meets the requirements of SAE J20R1, Class A, standard wall construction.

Note: This hose is not suitable for fuel or oil transfer.



Cover Color: Blue
Oil Resistance: High
Construction:
Tube: Silicone
Cover: Silicone
Reinforcement: 2-ply polyester fabric, silicone coated
Temperature Range: -67°F to +347°F
 -55°C to +175°C
Packaging: 5/8" I.D. – 25 ft.
 3/4" to 3" I.D. – 60 ft.
 3-1/8" to 6" I.D. – 12 ft.
 Other lengths available – 5% cutting charge

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16300306225▲	5/8	15.88	1.00	25.40	2	94	0.65	n/a	n/a	0.30	0.45
16300307560▲	3/4	19.05	1.13	28.58	2	81	0.56	n/a	n/a	0.35	0.52
16300308760▲	7/8	22.23	1.25	31.75	2	81	0.56	n/a	n/a	0.40	0.60
16300310060	1	25.40	1.38	34.93	2	75	0.52	n/a	n/a	0.44	0.65
16300311260▲	1-1/8	28.58	1.50	38.10	2	71	0.49	n/a	n/a	0.48	0.71
16300312560▲	1-1/4	31.75	1.63	41.28	2	69	0.48	n/a	n/a	0.52	0.77
16300313760▲	1-3/8	34.93	1.75	44.45	2	66	0.45	n/a	n/a	0.56	0.83
16300315060	1-1/2	38.10	1.88	47.63	2	63	0.43	n/a	n/a	0.60	0.89
16300316260▲	1-5/8	41.28	2.00	50.80	2	59	0.41	n/a	n/a	0.64	0.95
16300317560▲	1-3/4	44.45	2.13	53.98	2	56	0.39	n/a	n/a	0.69	1.03
16300318760▲	1-7/8	47.63	2.25	57.15	2	54	0.37	n/a	n/a	0.74	1.10
16300320060	2	50.80	2.38	60.33	2	50	0.34	n/a	n/a	0.77	1.15
16300321260▲	2-1/8	53.98	2.50	63.50	2	46	0.32	n/a	n/a	0.81	1.21
16300322560▲	2-1/4	57.15	2.63	66.68	2	44	0.30	n/a	n/a	0.86	1.28
16300323760▲	2-3/8	60.33	2.75	69.85	2	41	0.28	n/a	n/a	0.90	1.34
16300325060	2-1/2	63.50	2.88	73.03	2	38	0.26	n/a	n/a	0.94	1.40
16300326260▲	2-5/8	66.68	3.00	76.20	2	31	0.21	n/a	n/a	0.98	1.46
16300327560▲	2-3/4	69.85	3.13	79.38	2	31	0.21	n/a	n/a	1.02	1.52
16300328760▲	2-7/8	73.03	3.25	82.55	2	22	0.15	n/a	n/a	1.07	1.59
16300330060	3	76.20	3.38	85.73	2	22	0.15	n/a	n/a	1.11	1.65
16300331212▲	3-1/8	79.38	3.50	88.90	2	19	0.13	n/a	n/a	1.22	1.82
16300332512▲	3-1/4	82.55	3.63	92.08	2	18	0.12	n/a	n/a	1.27	1.89
16300335012▲	3-1/2	88.90	3.88	98.43	2	18	0.12	n/a	n/a	1.33	1.98
16300337512▲	3-3/4	95.25	4.13	104.78	2	13	0.09	n/a	n/a	1.42	2.11
16300340012▲	4	101.60	4.38	111.13	2	12	0.08	n/a	n/a	1.50	2.23
16300342512▲	4-1/4	107.95	4.63	117.48	2	12	0.08	n/a	n/a	1.60	2.38
16300345012▲	4-1/2	114.30	4.88	123.83	2	12	0.08	n/a	n/a	1.67	2.49
16300350012▲	5	127.00	5.38	136.53	2	12	0.08	n/a	n/a	1.85	2.75
16300355012▲	5-1/2	139.70	5.88	149.23	2	11	0.08	n/a	n/a	2.04	3.04
16300360012▲	6	152.40	6.38	161.93	2	10	0.07	n/a	n/a	2.20	3.27

▲ = Make To Order (MTO)
 n/a = Not Applicable

3004 SILICONE COOLANT HEAVY WALL 1/4"

Type 3004 Silicone Coolant hose is recommended for those heavy-duty applications such as Class 7 & 8 trucks and off-road equipment. The silicone tube and cover makes this hose tough and resistant to extreme heat (up to +347°F), chemicals, oils and other elements that attack coolant hoses in heavy-duty applications. This hose meets the requirements of SAE J20R1, Class A, heavy wall construction.

Note: This hose is not suitable for fuel or oil transfer.



Cover Color: Blue
Oil Resistance: High
Construction:
Tube: Silicone
Cover: Silicone
Reinforcement: 3-ply polyester fabric, silicone coated
Temperature Range: -67°F to +347°F
 -55°C to +175°C
Packaging: 5/8" I.D. – 25 ft.
 3/4" to 3" I.D. – 60 ft.
 3-1/8" to 6" I.D. – 12 ft.
 Other lengths available – 5% cutting charge





Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16300406225▲	5/8	15.88	1.13	28.58	3	125	0.86	n/a	n/a	0.40	0.60
16300407560▲	3/4	19.05	1.25	31.75	3	125	0.86	n/a	n/a	0.44	0.65
16300408760▲	7/8	22.23	1.38	34.93	3	125	0.86	n/a	n/a	0.50	0.74
16300410060▲	1	25.40	1.50	38.10	3	125	0.86	n/a	n/a	0.55	0.82
16300411260▲	1-1/8	28.58	1.63	41.28	3	125	0.86	n/a	n/a	0.60	0.89
16300412560▲	1-1/4	31.75	1.75	44.45	3	125	0.86	n/a	n/a	0.65	0.97
16300413760▲	1-3/8	34.93	1.88	47.63	3	113	0.78	n/a	n/a	0.70	1.04
16300415060▲	1-1/2	38.10	2.00	50.80	3	113	0.78	n/a	n/a	0.74	1.10
16300416260▲	1-5/8	41.28	2.13	53.98	3	106	0.73	n/a	n/a	0.90	1.34
16300417560▲	1-3/4	44.45	2.25	57.15	3	100	0.69	n/a	n/a	0.85	1.27
16300418760▲	1-7/8	47.63	2.38	60.33	3	94	0.65	n/a	n/a	0.91	1.35
16300420060▲	2	50.80	2.50	63.50	3	88	0.61	n/a	n/a	0.95	1.41
16300421260▲	2-1/8	53.98	2.63	66.68	3	88	0.61	n/a	n/a	1.00	1.49
16300422560▲	2-1/4	57.15	2.75	69.85	3	88	0.61	n/a	n/a	1.05	1.56
16300423760▲	2-3/8	60.33	2.88	73.03	3	75	0.52	n/a	n/a	1.10	1.64
16300425060▲	2-1/2	63.50	3.00	76.20	3	63	0.43	n/a	n/a	1.15	1.71
16300426260▲	2-5/8	66.68	3.13	79.38	3	63	0.43	n/a	n/a	1.20	1.79
16300427560▲	2-3/4	69.85	3.25	82.55	3	63	0.43	n/a	n/a	1.25	1.86
16300428760▲	2-7/8	73.03	3.38	85.73	3	63	0.43	n/a	n/a	1.31	1.95
16300430060▲	3	76.20	3.50	88.90	3	63	0.43	n/a	n/a	1.36	2.02
16300431212▲	3-1/8	79.38	3.63	92.08	3	50	0.34	n/a	n/a	1.46	2.17
16300432512▲	3-1/4	82.55	3.75	95.25	3	50	0.34	n/a	n/a	1.52	2.26
16300435012▲	3-1/2	88.90	4.00	101.60	3	50	0.34	n/a	n/a	1.60	2.38
16300437512▲	3-3/4	95.25	4.25	107.95	3	38	0.26	n/a	n/a	1.70	2.53
16300440012▲	4	101.60	4.50	114.30	3	38	0.26	n/a	n/a	1.81	2.69
16300442512▲	4-1/4	107.95	4.88	123.83	3	38	0.26	n/a	n/a	1.92	2.86
16300445012▲	4-1/2	114.30	5.00	127.00	3	38	0.26	n/a	n/a	2.09	3.11
16300450012▲	5	127.00	5.50	139.70	3	25	0.17	n/a	n/a	2.22	3.30
16300455012▲	5-1/2	139.70	6.00	152.40	3	25	0.17	n/a	n/a	2.45	3.65
16300460012▲	6	152.40	6.50	165.10	3	25	0.17	n/a	n/a	2.65	3.94

▲ = Make To Order (MTO)
 n/a = Not Applicable

3005 SILICONE COOLANT HEATER SAE 20R3 CLASS A

Type 3005 Silicone Heater hose is recommended for those applications in the heavy-duty market. This hose features a special silicone compound that meets the SAE 20R3, Class A specifications. Type 3005 Silicone Heater hose is highly resistant to the deteriorating effects of oil, ozone, coolants and coolant additives. The nylon reinforcement enables this hose to be extremely flexible while resisting temperatures up to +347° (+175°C).



Resistance:	   
Branding:	Silicone Heater Hose - 3005, I.D., Made In USA

Cover Color: Blue
Oil Resistance: High
Construction:
Tube: Silicone
Cover: Silicone
Reinforcement: Nylon
Temperature Range: -67°F to +347°F
 -55°C to +175°C
Packaging: 50 ft. in a carton





Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16300502550▲	1/4	6.35	0.56	14.29	2	63	0.43	n/a	n/a	0.19	0.28
16300503750▲	3/8	9.53	0.69	17.46	2	63	0.43	n/a	n/a	0.25	0.37
16300505050▲	1/2	12.70	0.81	20.64	2	63	0.43	n/a	n/a	0.29	0.43
16300506250▲	5/8	15.88	0.94	23.81	2	63	0.43	n/a	n/a	0.35	0.52
16300507550▲	3/4	19.05	1.06	26.99	2	50	0.34	n/a	n/a	0.39	0.58
16300508750▲	7/8	22.23	1.19	30.16	2	50	0.34	n/a	n/a	0.44	0.65
16300510050▲	1	25.40	1.34	34.13	2	44	0.30	n/a	n/a	0.49	0.73

▲ = Make To Order (MTO)
 n/a = Not Applicable

3009 SILCOFLEX™ SILICONE COOLANT HARD WALL

Silcoflex is the industry standard for steel wire reinforced multipurpose silicone hose. The polyester with a helical wire reinforcement makes this hose very flexible and resistant to kinking and vacuum. The silicone tube and cover makes this hose extremely resistant to the ravages of heat and hostile environments. This hose is recommended for upper and lower radiator applications in the heavy-duty and off-road markets.



Resistance:	   
Branding:	Similar to SAE20R2, Class A. Also Meets SAE J2006R2

Cover Color: Blue
Oil Resistance: High
Construction:
Tube: Silicone
Cover: Silicone
Reinforcement: Polyester with a helical wire
Temperature Range: -67°F to +347°F
 -55°C to +175°C
Packaging: 60 ft.
 Other lengths available – 5% cutting charge
 Contact customer service for minimum run requirements

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16300910060▲	1	25.40	1.44	36.51	2	70	0.48	4.00	101.60	0.56	0.83
16300911260▲	1-1/8	28.58	1.56	39.69	2	66	0.45	4.50	114.30	0.61	0.91
16300912560▲	1-1/4	31.75	1.69	42.86	2	58	0.40	5.00	127.00	0.66	0.98
16300913760▲	1-3/8	34.93	1.81	46.04	2	58	0.40	5.50	139.70	0.72	1.07
16300915060▲	1-1/2	38.10	1.94	49.21	2	58	0.40	6.00	152.40	0.76	1.13
16300916260▲	1-5/8	41.28	2.06	52.39	2	55	0.38	6.50	165.10	0.82	1.22
16300917560▲	1-3/4	44.45	2.19	55.56	2	55	0.38	7.00	177.80	0.87	1.29
16300918760▲	1-7/8	47.63	2.31	58.74	2	50	0.34	7.50	190.50	0.93	1.38
16300920060▲	2	50.80	2.44	61.91	2	47	0.32	8.00	203.20	0.97	1.44
16300921260▲	2-1/8	53.98	2.56	65.09	2	20	0.14	8.50	215.90	1.03	1.53
16300922560▲	2-1/4	57.15	2.69	68.26	2	20	0.14	9.00	228.60	1.05	1.56
16300923760▲	2-3/8	60.33	2.81	71.44	2	43	0.30	9.00	228.60	1.10	1.64
16300925060▲	2-1/2	63.50	2.94	74.61	2	40	0.28	10.00	254.00	1.15	1.71
16300926260▲	2-5/8	66.68	3.06	77.79	2	38	0.26	10.50	266.70	1.34	1.99
16300927560▲	2-3/4	69.85	3.19	80.96	2	38	0.26	11.00	279.40	1.40	2.08
16300928760▲	2-7/8	73.03	3.31	84.14	2	36	0.25	11.50	292.10	1.47	2.19
16300930060▲	3	76.20	3.44	87.31	2	35	0.24	12.00	304.80	1.52	2.26
16300940060▲	4	101.60	4.44	112.71	2	30	0.21	16.00	406.40	2.17	3.23

▲ = Make To Order (MTO)

2400 WET EXHAUST SAE J2006

Style 2400 hose is a soft wall hose designed for use as a straight connection in wet exhaust systems on marine gasoline or diesel engines. This hose can also be used in other marine applications such as drains, replacement of metal piping and vibration absorption.

Note: Wet Exhaust is not designed for vacuum service.



Cover Color: Black
Oil Resistance: Medium to Medium-High
Construction:
Tube: NBR/SBR blend
Cover: CR/NBR blend
Reinforcement: Tire Cord
Temperature Range: 0°F to +212°F
 -18°C to +100°C
Packaging: 12 ft. and 60 ft. lengths available
 Contact customer service for minimum run requirements
 Other lengths available – 5% cutting charge

Product Number 12 Feet	Product Number 60 Feet	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Plies	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)		Std. Case
16240007512▲	16240007560▲	3/4	19.05	1.25	31.75	2	150	1.03	n/a	n/a	0.51	0.76	2
16240008712	16240008760	7/8	22.23	1.38	35.05	2	150	1.03	n/a	n/a	0.58	0.86	2
16240010012	16240010060	1	25.40	1.50	38.10	2	150	1.03	n/a	n/a	0.60	0.89	2
16240010612▲	16240010660▲	1-1/16	26.99	1.56	39.62	2	150	1.03	n/a	n/a	0.65	0.97	2
16240011212▲	16240011260▲	1-1/8	28.58	1.63	41.40	2	150	1.03	n/a	n/a	0.71	1.06	2
16240012512	16240012560	1-1/4	31.75	1.75	44.45	2	150	1.03	n/a	n/a	0.74	1.10	2
16240013112▲	16240013160▲	1-5/16	33.34	1.81	45.97	2	150	1.03	n/a	n/a	0.77	1.15	2
16240013712	16240015060	1-3/8	34.93	2.08	52.83	2	150	1.03	n/a	n/a	0.82	1.22	2
16240015012	16240015060	1-1/2	38.10	2.20	55.88	2	150	1.03	n/a	n/a	0.88	1.31	2
16240016212	16240016260	1-5/8	41.28	2.33	59.18	2	150	1.03	n/a	n/a	0.93	1.38	2
16240017512▲	16240017560▲	1-3/4	44.45	2.45	62.23	2	150	1.03	n/a	n/a	0.94	1.40	2
16240018712	16240018760	1-7/8	47.63	2.57	65.28	2	150	1.03	n/a	n/a	1.05	1.56	2
16240020012	16240020060	2	50.80	2.70	68.58	2	100	0.69	n/a	n/a	1.11	1.65	2
16240021212▲	16240021260▲	2-1/8	53.98	2.82	71.63	2	100	0.69	n/a	n/a	1.16	1.73	1
16240022512▲	16240022560▲	2-1/4	57.15	2.95	74.93	2	100	0.69	n/a	n/a	1.22	1.82	1
16240023712	16240023760	2-3/8	60.33	3.07	77.98	2	100	0.69	n/a	n/a	1.28	1.90	1
16240025012	16240025060	2-1/2	63.50	3.20	81.28	2	100	0.69	n/a	n/a	1.33	1.98	1
16240026212▲	16240026260▲	2-5/8	66.68	3.33	84.58	2	100	0.69	n/a	n/a	1.39	2.07	1
16240027512▲	16240027560▲	2-3/4	69.85	3.43	87.12	2	100	0.69	n/a	n/a	1.44	2.14	1
16240028712▲	16240028760▲	2-7/8	73.03	3.57	90.68	2	100	0.69	n/a	n/a	1.50	2.23	1
16240030012	16240030060	3	76.20	3.70	93.98	2	100	0.69	n/a	n/a	1.56	2.32	1
16240032512▲	16240032560▲	3-1/4	82.55	3.95	100.33	2	100	0.69	n/a	n/a	1.62	2.41	1
16240035012	16240035060	3-1/2	88.90	4.20	106.68	2	100	0.69	n/a	n/a	1.73	2.57	1
16240037512▲	16240037560▲	3-3/4	95.25	4.45	113.03	2	100	0.69	n/a	n/a	1.84	2.74	1
16240040012	16240040060	4	101.60	4.70	119.38	2	100	0.69	n/a	n/a	1.96	2.92	1
16240045012	16240045060	4-1/2	114.30	5.20	132.08	2	100	0.69	n/a	n/a	2.18	3.24	1
16240050012▲	16240050060▲	5	127.00	5.70	144.78	2	100	0.69	n/a	n/a	2.41	3.59	1
16240055012▲	16240055060▲	5-1/2	139.70	6.20	157.48	2	100	0.69	n/a	n/a	2.63	3.91	1
16240055612▲	16240055660▲	5-9/16	141.29	6.26	159.00	2	100	0.69	n/a	n/a	2.66	3.96	1
16240060012▲	16240060060▲	6	152.40	6.26	159.00	2	100	0.69	n/a	n/a	2.86	4.26	1
16240066212▲		6-5/8	168.28	7.38	187.45	4	100	0.69	n/a	n/a	4.40	6.55	1
16240070012▲		7	177.80	7.75	196.85	4	100	0.69	n/a	n/a	4.54	6.76	1
16240080012▲		8	203.20	8.75	222.25	4	85	0.59	n/a	n/a	5.25	7.81	1
16240086212▲		8-5/8	219.08	9.38	238.25	4	85	0.59	n/a	n/a	5.64	8.39	1
16240010112▲		10	254.00	10.75	273.05	4	75	0.52	n/a	n/a	6.49	9.66	1
16240010712▲		10-3/4	273.05	11.50	292.10	4	70	0.48	n/a	n/a	7.05	10.49	1
16240012012▲		12	304.80	12.75	323.85	4	60	0.41	n/a	n/a	7.83	11.65	1
16240012712▲		12-3/4	323.85	13.50	342.90	4	50	0.34	n/a	n/a	8.26	12.29	1

▲ = Make To Order (MTO)
 n/a = Not Applicable

2428 MARINER PREMIUM WET EXHAUST SAE J2006

The Mariner hose is the top-of-the-line marine exhaust hose. This multi-ply soft wall hose is designed to be used as a straight connection in wet exhaust systems on marine gasoline or diesel engines. The CR/NBR blended cover is oil, heat and ozone resistant. The tube is an NBR/SBR blend that gives this hose coolant and heat resistance



Resistance:



Branding:

Thermoid Mariner Wet Exhaust
SAE J2006 R1, Date
Made In USA

Cover Color: Black
Oil Resistance: Medium to Medium-High

Construction:
Tube: NBR/SBR blend
Cover: CR/NBR blend
Reinforcement: Tire cord

Temperature Range: 0°F to +212°F
-18°C to +100°C

Packaging: 12 ft. and 60 ft. lengths available
Contact customer service for minimum run requirements
Other lengths available – 5% cutting charge

Product Number 12 Feet	Product Number 60 Feet	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Plies	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)	Std. Case
16242807512▲	16242807560▲	3/4 19.05	1.38 34.93	2	200 1.38	n/a n/a	0.61 0.91	2
16242808712▲	16242808760▲	7/8 22.23	1.50 38.10	2	200 1.38	n/a n/a	0.68 1.01	2
16242810012▲	16242810060▲	1 25.40	1.63 41.28	2	200 1.38	n/a n/a	0.75 1.12	2
16242810612▲	16242810660▲	1-1/16 26.99	1.69 42.86	2	200 1.38	n/a n/a	0.78 1.16	2
16242811212▲	16242811260▲	1-1/8 28.58	1.75 44.45	2	200 1.38	n/a n/a	0.82 1.22	2
16242812512▲	16242812560▲	1-1/4 31.75	1.88 47.63	2	200 1.38	n/a n/a	0.89 1.32	2
16242813112▲	16242813160▲	1-5/16 33.34	1.94 49.21	2	200 1.38	n/a n/a	0.93 1.38	2
16242813712▲	16242813760▲	1-3/8 34.93	2.00 50.80	2	200 1.38	n/a n/a	0.95 1.41	2
16242815012▲	16242815060▲	1-1/2 38.10	2.13 53.98	2	200 1.38	n/a n/a	1.02 1.52	2
16242816212▲	16242816260▲	1-5/8 41.28	2.25 57.15	2	200 1.38	n/a n/a	1.05 1.56	2
16242817512▲	16242817560▲	1-3/4 44.45	2.38 60.33	2	200 1.38	n/a n/a	1.12 1.67	2
16242818712▲	16242818760▲	1-7/8 47.63	2.50 63.50	2	200 1.38	n/a n/a	1.19 1.77	2
16242820012▲	16242820060▲	2 50.80	2.63 66.68	2	200 1.38	n/a n/a	1.25 1.86	2
16242821212▲	16242821260▲	2-1/8 53.98	2.75 69.85	2	200 1.38	n/a n/a	1.32 1.96	1
16242822512▲	16242822560▲	2-1/4 57.15	2.88 73.03	4	200 1.38	n/a n/a	1.59 2.37	1
16242823712▲	16242823760▲	2-3/8 60.33	3.00 76.20	4	175 1.21	n/a n/a	1.67 2.49	1
16242825012▲	16242825060▲	2-1/2 63.50	3.25 82.55	4	175 1.21	n/a n/a	1.73 2.57	1
16242826212▲	16242826260▲	2-5/8 66.68	3.38 85.73	4	175 1.21	n/a n/a	1.81 2.69	1
16242827512▲	16242827560▲	2-3/4 69.85	3.50 88.90	4	175 1.21	n/a n/a	1.88 2.80	1
16242828712▲	16242828760▲	2-7/8 73.03	3.63 92.08	4	175 1.21	n/a n/a	1.95 2.90	1
16242830012▲	16242830060▲	3 76.20	3.75 95.25	4	150 1.03	n/a n/a	2.03 3.02	1
16242831212▲	16242831260▲	3-1/8 79.38	3.88 98.43	4	150 1.03	n/a n/a	2.10 3.13	1
16242832512▲	16242832560▲	3-1/4 82.55	4.00 101.60	4	150 1.03	n/a n/a	2.18 3.24	1
16242835012▲	16242835060▲	3-1/2 88.90	4.25 107.95	4	150 1.03	n/a n/a	2.32 3.45	1
16242837512▲	16242837560▲	3-3/4 95.25	4.50 114.30	4	150 1.03	n/a n/a	2.47 3.68	1
16242840012▲	16242840060▲	4 101.60	4.75 120.65	4	150 1.03	n/a n/a	2.62 3.90	1
16242845012▲	16242845060▲	4-1/2 114.30	5.25 133.35	4	150 1.03	n/a n/a	2.91 4.33	1
16242850012▲	16242850060▲	5 127.00	5.75 146.05	4	150 1.03	n/a n/a	3.21 4.78	1
16242855012▲	16242855060▲	5-1/2 139.70	6.25 158.75	4	150 1.03	n/a n/a	3.50 5.21	1
16242860012▲	16242860060▲	6 152.40	6.63 168.28	4	150 1.03	n/a n/a	3.79 5.64	1
16242866212▲		6-5/8 168.28	7.63 193.68	6	150 1.03	n/a n/a	5.47 8.14	1
16242870012▲		7 177.80	8.00 203.20	6	150 1.03	n/a n/a	5.75 8.56	1
16242880012▲		8 203.20	9.00 228.60	6	100 0.69	n/a n/a	6.50 9.67	1
16242886212▲		8-5/8 219.08	9.63 244.48	6	100 0.69	n/a n/a	6.98 10.39	1
16242810112▲		10 254.00	11.00 279.40	6	90 0.62	n/a n/a	8.03 11.95	1
16242810712▲		10-3/4 273.05	11.75 298.45	6	75 0.52	n/a n/a	8.64 12.86	1
16242812012▲		12 304.80	13.00 330.20	6	60 0.41	n/a n/a	9.59 14.27	1
16242812712▲		12-3/4 323.85	13.75 349.25	6	50 0.34	n/a n/a	10.12 15.06	1

▲ = Make To Order (MTO)
n/a = Not Applicable

TYPE 2458 MARINE – Black Cover

Type 2458 Marine hose is designed to handle wet marine exhaust, coupling coolant and heavy duty radiator service. This hose will also handle oily service applications. Type 2458 Marine hose is designed to fit over standard pipe. This hose features a neoprene tube and cover. This makes the tube resistant to hot water, antifreeze solutions and exhaust gasses when mixed with water. The cover will resist scuffing, gouging, ozone and sunlight.



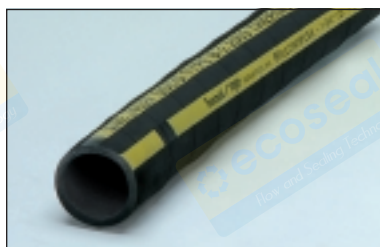
Cover Color: Black
Oil Resistance: Medium
Construction:
 Tube: CR
 Cover: CR
Reinforcement: Multiple plies of polycord
Temperature Range: -40°F to +212°F
 -40°C to +100°C
Packaging: 50 ft. maximum
 Also available to meet SAE 20R1 Class C,
 standard or heavy wall construction

Product Number	Nominal I.D.		Nominal O.D.		Fits Over Pipe I.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16245810660▲	1-1/16	26.99	1.53	38.89	3/4	19.05	3	150	1.03	n/a	n/a	0.60	0.89
16245813160▲	1-5/16	33.34	1.84	46.83	1	25.40	4	150	1.03	n/a	n/a	0.70	1.04
16245816260▲	1-5/8	41.28	2.16	54.77	1-1/4	31.75	4	150	1.03	n/a	n/a	0.90	1.34
16245818760▲	1-7/8	47.63	2.44	61.91	1-1/2	38.10	4	125	0.86	n/a	n/a	1.00	1.49
16245823760▲	2-3/8	60.33	2.97	75.41	2	50.80	4	100	0.69	n/a	n/a	1.30	1.93
16245828760▲	2-7/8	73.03	3.47	88.11	2-1/2	63.50	4	100	0.69	n/a	n/a	1.70	2.53
16245830060▲	3	76.20	3.59	91.28	—	—	4	100	0.69	n/a	n/a	1.80	2.68
16245835060▲	3-1/2	88.90	4.09	103.98	3	76.20	4	85	0.59	n/a	n/a	2.10	3.13
16245840060▲	4	101.60	4.66	118.27	3-1/2	88.90	5	75	0.52	n/a	n/a	2.60	3.87
16245845060▲	4-1/2	114.30	5.22	132.56	4	101.60	5	70	0.48	n/a	n/a	3.20	4.76
16245866212▲	6-5/8	168.28	7.19	182.56	6	152.40	4	100	0.69	n/a	n/a	2.90	4.32
16245886212▲	8-5/8	219.08	9.25	234.95	8	203.20	4	100	0.69	n/a	n/a	4.00	5.95
16245810712▲	10-3/4	273.05	11.38	288.93	10	254.00	4	100	0.69	n/a	n/a	4.90	7.29
16245812712▲	12-3/4	323.85	13.50	342.90	12	304.80	5	100	0.69	n/a	n/a	5.90	8.78

▲ = Make To Order (MTO)
n/a = Not Applicable

7910 BELLOWSFLEX™ “A” COOLANT, MARINE, FUEL

Type 7910 Bellowsflex hose is an extremely versatile product which has become an industry standard. This multipurpose hose is used in applications where wire reinforcement is required to provide great flexibility and resist kinking. Some of the applications include: bilge ventilation, bilge pump intake and discharge, toilet and bath connections, cabin heating, internal water systems, galleys and drains. This hose meets SAE J1527 Type A2, USCG 1942F and SAE J2006, R2.



Resistance:



Branding:

Bellowsflex™ -A(XXX) mm (INCA) I.D.
SAEJ1527 USCG Type A-2 SAEJ1942 F(XXX)
MPA WP SAEJ2006 R2 Thermod®
Made In USA (year) – Caution Statement

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR
 - Cover:** CR
 - Reinforcement:** Nylon screen with helical wire
- Temperature Range:** -20°F to +212°F
-29°C to +100°C
- Packaging:** 1/2" and 5/8" I.D. – 25 ft. maximum, all others 60 ft.
Other lengths available – 5% cutting charge
Contact customer service for minimum run requirements



Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16791005025	1/2	12.70	0.88	22.23	2	60	0.41	2.00	50.80	0.32	0.48
16791006225	5/8	15.88	1.00	25.40	2	60	0.41	2.00	50.80	0.36	0.54
16791007560	3/4	19.05	1.13	28.58	2	58	0.40	3.00	76.20	0.48	0.71
16791008760	7/8	22.23	1.25	31.75	2	55	0.38	3.00	76.20	0.55	0.82
16791010060	1	25.40	1.38	34.93	2	53	0.37	3.00	76.20	0.61	0.91
16791010660	1-1/16	26.99	1.44	36.51	2	53	0.37	3.00	76.20	0.63	0.94
16791011260	1-1/8	28.58	1.50	38.10	2	50	0.34	3.00	76.20	0.67	1.00
16791012560	1-1/4	31.75	1.63	41.28	2	44	0.30	3.00	76.20	0.72	1.07
16791013160	1-5/16	33.34	1.69	42.86	2	44	0.30	4.00	101.60	0.76	1.13
16791013760	1-3/8	34.93	1.75	44.45	2	44	0.30	4.00	101.60	0.79	1.18
16791015060	1-1/2	38.10	1.88	47.63	2	44	0.30	4.00	101.60	0.84	1.25
16791016260	1-5/8	41.28	2.00	50.80	2	41	0.28	5.00	127.00	0.90	1.34
16791017560	1-3/4	44.45	2.13	53.98	2	41	0.28	5.00	127.00	0.96	1.43
16791018760	1-7/8	47.63	2.25	57.15	2	38	0.26	5.00	127.00	1.02	1.52
16791020060	2	50.80	2.38	60.33	2	35	0.24	6.00	152.40	1.07	1.59
16791021260	2-1/8	53.98	2.50	63.50	2	34	0.23	6.00	152.40	1.13	1.68
16791022560	2-1/4	57.15	2.63	66.68	2	34	0.23	6.00	152.40	1.18	1.76
16791023760	2-3/8	60.33	2.75	69.85	2	33	0.23	7.00	177.80	1.19	1.77
16791025060	2-1/2	63.50	2.88	73.03	2	30	0.21	8.00	203.20	1.23	1.83
16791026260	2-5/8	66.68	3.00	76.20	2	30	0.21	10.00	254.00	1.28	1.90
16791027560	2-3/4	69.85	3.13	79.38	2	29	0.20	10.00	254.00	1.34	1.99
16791028760	2-7/8	73.03	3.25	82.55	2	29	0.20	11.00	279.40	1.40	2.08
16791030060	3	76.20	3.38	85.73	2	26	0.18	13.00	330.20	1.51	2.25
16791031260	3-1/8	79.38	3.50	88.90	2	23	0.16	13.00	330.20	1.57	2.34
16791032560	3-1/4	82.55	3.63	92.08	2	21	0.14	14.00	355.60	1.63	2.43
16791035060	3-1/2	88.90	3.88	98.43	2	20	0.14	14.00	355.60	1.75	2.60
16791040060	4	101.60	4.38	111.13	2	18	0.12	15.00	381.00	1.98	2.95
16791045060	4-1/2	114.30	4.88	123.83	2	16	0.11	16.00	406.40	2.21	3.29
16791050060	5	127.00	5.38	136.53	2	14	0.10	28.00	711.20	2.69	4.00
16791055060	5-1/2	139.70	5.88	149.23	2	13	0.09	31.00	787.40	2.94	4.38
16791060060	6	152.40	6.38	161.93	2	11	0.08	33.00	838.20	3.42	5.09

AUTOMOTIVE/MARINE COOLANT Marine – Coolant, Fuel & Wet Exhaust

7951 SAE 100R4 HYDRAULIC RETURN/SUCTION

Style 7951 hose is designed to be used for suction or return lines on hydraulic systems. Meets all specification requirements for SAE 100R4. This hose is rated at **25 inches of Hg vacuum**.



Resistance:
 
Branding:
SAE 100R4 I.D. Made In USA

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR
 - Cover:** CR
 - Reinforcement:** Tire cord with helical wire
- Temperature Range:** -40°F to +212°F
-40°C to +100°C
- Packaging:** 60 ft. maximum
Other lengths available – 5% cutting charge
Contact customer service for minimum run requirements

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16795107560▲	3/4	19.05	1.31	33.34	2	300	2.07	5.00	127.00	0.57	0.85
16795108760▲	7/8	22.23	1.44	36.51	2	300	2.07	5.50	139.70	0.63	0.94
16795110060	1	25.40	1.56	39.69	2	300	2.07	6.00	152.40	0.70	1.04
16795112560	1-1/4	31.75	1.81	46.04	2	300	2.07	8.00	203.20	0.83	1.24
16795115060	1-1/2	38.10	2.03	51.59	2	300	2.07	10.00	254.00	1.09	1.62
16795117560▲	1-3/4	44.45	2.31	58.74	2	300	2.07	11.00	279.40	1.24	1.85
16795120060▲	2	50.80	2.56	65.09	2	300	2.07	12.00	304.80	1.39	2.07
16795122560▲	2-1/4	57.15	2.81	71.44	2	300	2.07	13.00	330.20	1.47	2.19
16795125060▲	2-1/2	63.50	3.06	77.79	2	62	0.43	14.00	355.60	1.61	2.40
16795127560▲	2-3/4	69.85	3.31	84.14	2	60	0.41	16.00	406.40	1.75	2.60
16795130060▲	3	76.20	3.56	90.49	2	56	0.39	18.00	457.20	1.97	2.93

▲ = Make To Order (MTO)

TRANSPORTER® ULTRA-CHEM™

Transporter Ultra-Chem hose has been engineered to be extremely flexible. This hose will handle 98% of all common industrial chemicals. Ultra-Chem is ideal for pressure, gravity flow and suction service. This hose has been rated at **full vacuum**. The green EPDM cover is abrasion and chemical resistant. This hose can also come with a black EPDM cover.

For the temperature range of this hose, please see the Chemical Resistance Guide. Note: Working pressures reflect a permanent type coupling such as swage or internally expanded. For banded type couplings, the working pressure should reflect 65% of the ratings listed. ▲ See Chemical Hose Warnings, pages 9 and 128.



- Cover Color:** Green
- Oil Resistance:** High at 70°F, not rated at 140°F
- Construction:**
 - Tube:** UHMWPE backed with compatible rubber layer
 - Cover:** EPDM
 - Reinforcement:** Multiple synthetic textile cords and a dual wire helix(es).
- Temperature Range:** Maximum temperature limitation +180°F (82°C) for most chemicals
- Packaging:** 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Green											
17709008002	1	25.40	1.47	36.75	2	250	1.72	4.00	101.60	0.53	0.79
17709009002	1-1/4	31.75	1.78	44.50	2	250	1.72	4.00	101.60	0.75	1.12
17709010002	1-1/2	38.10	2.08	52.00	2	250	1.72	4.00	101.60	0.96	1.43
17709012002	2	50.80	2.58	64.50	2	250	1.72	6.00	152.40	1.30	1.93
17709013002	2-1/2	63.50	3.13	78.25	2	200	1.38	8.00	203.20	1.77	2.63
17709014002	3	76.20	3.66	91.50	2	200	1.38	9.00	228.60	2.09	3.11
17709016002	4	101.60	4.70	117.50	2	150	1.03	12.00	304.80	2.92	4.35
17709018002▲	6	152.40	6.90	172.50	4	150	1.03	30.00	762.00	5.77	8.59
Black											
17709300002	1	25.40	1.47	36.75	2	250	1.72	4.00	101.60	0.52	0.77

▲ = Make To Order (MTO)

ATLAS™ ACID DISCHARGE

This is to be used as a discharge hose only. For pinch valve service or for use where acid forms crust inside hose that must be broken off. Also for handling many inorganic acids with the exception of strong oxidizing agents such as nitric, chromic and concentrated sulphuric. This hose will withstand most inorganic salts and alkalis. The black NBR cover resists abrasion, sunlight and weathering.

⚠ See Chemical Hose Warnings, pages 9 and 128.



Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: 3/16" NR
Cover: SBR
Reinforcement: Multiple plies of strong, square-woven duck
Temperature Range: -40°F to +160°F
 -40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 50 ft. lengths
Minimum Run: 500 ft./size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21204420502	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.70	1.04
21204421502	1	25.40	1.75	44.45	4	150	1.03	n/a	n/a	0.80	1.19
21204422502	1-1/4	31.75	2.00	50.80	4	150	1.03	n/a	n/a	0.90	1.34
21204423502	1-1/2	38.10	2.25	57.15	4	100	0.69	n/a	n/a	1.10	1.64
21204424502	2	50.80	2.81	71.44	4	100	0.69	n/a	n/a	1.40	2.08
21204425502	2-1/2	63.50	3.31	84.14	4	75	0.52	n/a	n/a	1.70	2.53
21204426502	3	76.20	3.81	96.84	4	75	0.52	n/a	n/a	1.90	2.83

n/a = Not Applicable

ATLAS™ ACID SUCTION & DISCHARGE

This hose is used for suction and discharge service handling many inorganic acids, except the strong oxidizing agents. This hose also withstands most salts and alkalis. This hose is made with capped, straight or enlarged ends. Can be made with Flexlock™ or Flexseal™ ends, so that no metal contacts corrosives.

The black neoprene cover resists abrasion, sunlight and weather. The helical wire and multiple plies of reinforcement enable this hose to maintain full vacuum and be able to handle the discharge pressures. Flexible construction keeps the hose round when bent, reducing kinking. Tube thickness can be specified according to the severity of the service.

⚠ See Chemical Hose Warnings, pages 9 and 128.



Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: 3/16" NR
Cover: SBR
Reinforcement: Multiple plies of strong, square-woven duck with helical wire
Temperature Range: -40°F to +160°F
 -40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 50 ft. lengths maximum
Minimum Run: Varies with size. Contact customer service for required minimums

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21204480502▲	1-1/2	38.10	2.38	60.33	2	100	0.69	5.00	127.00	1.50	2.23
21204482502▲	2	50.80	2.88	73.03	3	100	0.69	7.00	177.80	2.00	2.98
21204484502▲	2-1/2	63.50	3.50	88.90	3	75	0.52	8.00	203.20	2.60	3.87
21204486502▲	3	76.20	3.31	84.14	3	75	0.52	9.00	228.60	3.00	4.46
11404532502▲	3-1/2	88.90	4.50	114.30	3	75	0.52	12.00	304.80	3.40	5.06
11404534502▲	4	101.60	5.00	127.00	4	75	0.52	16.00	406.40	4.20	6.25
11404536502▲	4-1/2	114.30	5.56	141.29	4	75	0.52	18.00	457.20	5.20	7.74
11404538502▲	5	127.00	6.13	155.58	4	50	0.34	25.00	635.00	5.70	8.48
11404541502▲	6	152.40	7.13	180.98	4	50	0.34	30.00	762.00	6.90	10.27
11404543502▲	6-5/8	168.28	7.81	198.44	5	50	0.34	39.75	1009.65	8.00	11.91
11404546502▲	8	203.20	9.31	236.54	5	50	0.34	48.00	1219.20	11.40	16.97
11404548502▲	8-5/8	219.08	9.94	252.41	5	50	0.34	51.75	1314.45	12.40	18.45
11404550502▲	10	254.00	11.38	288.93	6	50	0.34	60.00	1524.00	14.10	20.98

▲ = Make To Order (MTO)

COMMANDER® ACID DISCHARGE

This is to be used as a discharge hose only. This hose handles many highly corrosive acids such as sulphuric acid, chromic acid, nitric acid, sodium dichromate, sodium hydrochlorite and glacial acetic acid. Good for use where acid slurry deposits on hose. The neoprene rubber cover resists abrasion, sunlight, weathering and scuffing.

▲ See Chemical Hose Warnings, pages 9 and 128.



Cover Color: Black
Oil Resistance: Medium
Construction:
Tube: 3/16" GSM compound
Cover: CR
Reinforcement: Multiple plies of strong, square-woven duck
Temperature Range: -40°F to +160°F
 -40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 50 ft. lengths
Minimum Run: 500 ft./size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21204435502▲	1/2	12.70	1.25	31.75	4	150	1.03	n/a	n/a	0.50	0.74
21204436502▲	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.60	0.89
21204437502▲	1	25.40	1.75	44.45	4	150	1.03	n/a	n/a	0.80	1.19
21204438502▲	1-1/4	31.75	2.00	50.80	4	150	1.03	n/a	n/a	0.90	1.34
21204439502▲	1-1/2	38.10	2.25	57.15	4	100	0.69	n/a	n/a	1.00	1.49
21204440502▲	2	50.80	2.81	71.44	4	100	0.69	n/a	n/a	1.40	2.08
21204441502▲	2-1/2	63.50	3.31	84.14	4	75	0.52	n/a	n/a	1.70	2.53
21204442502▲	3	76.20	3.81	96.84	4	75	0.52	n/a	n/a	2.00	2.98

▲ = Make To Order (MTO)
 n/a = Not Applicable

COMMANDER® ACID SUCTION & DISCHARGE

This hose is used for suction and discharge in handling many highly corrosive acids and other materials such as sulphuric acid, chromic acid, nitric acid, sodium dichromate, sodium hypochlorite and glacial acetic acid. This hose can be assembled with Flexlock™ or Flexseal™ ends, so no metal contacts corrosives. The black neoprene cover resists abrasion, sunlight, weather and scuffing. Flexible construction keeps the hose round when bent, reducing kinking. The helical wire and multiple plies of reinforcement enable this hose to maintain full vacuum and be able to handle the discharge pressures. Tube thickness can be specified to meet various conditions used in an open, well-ventilated environment.

▲ See Chemical Hose Warnings, pages 9 and 128.



Cover Color: Black
Oil Resistance: Medium
Construction:
Tube: 3/16" GSM compound
Cover: CR
Reinforcement: Multiple plies of strong, square-woven duck with helical wire
Temperature Range: -40°F to +160°F
 -40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 50 ft. lengths maximum
Minimum Run: Varies with size. Contact customer service for required minimums

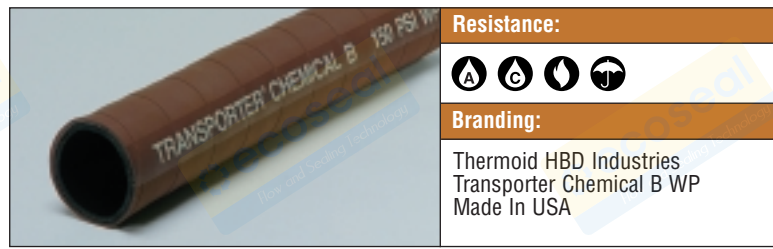
Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21204460502▲	1-1/2	38.10	2.38	60.33	2	100	0.69	5.00	127.00	1.90	2.83
21204462502▲	2	50.80	3.06	77.79	3	100	0.69	7.00	177.80	2.70	4.02
21204464502▲	2-1/2	63.50	3.50	88.90	3	75	0.52	8.00	203.20	3.20	4.76
21204466502▲	3	76.20	4.00	101.60	3	75	0.52	9.00	228.60	3.80	5.66
11404468502▲	3-1/2	88.90	4.50	114.30	3	75	0.52	12.00	304.80	4.20	6.25
11404470502▲	4	101.60	5.06	128.59	4	75	0.52	16.00	406.40	5.30	7.89
11404472502▲	4-1/2	114.30	5.69	144.46	4	75	0.52	18.00	457.20	6.40	9.52
11404474502▲	5	127.00	6.19	157.16	4	50	0.34	25.00	635.00	7.30	10.86
11404476502▲	6	152.40	7.19	182.56	4	50	0.34	30.00	762.00	8.50	12.65
11404478502▲	6-5/8	168.28	7.81	198.44	5	50	0.34	39.75	1009.65	9.80	14.58
11404480502▲	8	203.20	9.31	236.54	5	50	0.34	48.00	1219.20	13.30	19.79
11404482502▲	8-5/8	219.08	9.94	252.41	5	50	0.34	51.75	1314.45	15.00	22.32
11404485502▲	10	254.00	11.38	288.93	6	50	0.34	60.00	1524.00	17.00	25.30

▲ = Make To Order (MTO)

TRANSPORTER® CHEMICAL B

Transporter Chemical B hose is a general purpose hose designed to handle strong and oxidizing acids, esters, ketones and alcohols. This hose features an EPDM cover that is resistant to heat, chemicals and weathering. This hose is rated at **full vacuum**. Chemical B hose also features a reinforcement of a spiral steel helix between synthetic textile plies.

▲ See Chemical Hose Warnings, pages 9 and 128.



Cover Color: Brown
Oil Resistance: Limited
Construction:
Tube: IIR
Cover: EPDM
Reinforcement: Spiral steel wire helix(es) between synthetic textile plies
Temperature Range: -40°F to +200°F
 -40°C to +93°C
Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.
Packaging: 1" I.D. – 50 ft.
 1-1/2" - 4" I.D. – 100 ft.

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17704010002▲	1	25.40	1.50	38.10	2	150	1.03	3.00	76.20	0.65	0.97
17704015002▲	1-1/2	38.10	2.03	51.59	2	150	1.03	4.00	101.60	0.88	1.31
17704020002	2	50.80	2.56	65.09	2	150	1.03	6.00	152.40	1.23	1.83
17704030002	3	76.20	3.63	92.08	2	150	1.03	9.00	228.60	2.20	3.27
17704040002	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	3.00	4.46

▲ = Make To Order (MTO)

TRANSPORTER® CHEMICAL H

Transporter Chemical H hose is recommended to handle many inorganic acids, bases, alcohols, oils, fats, chemicals, greases and solvents. This hose features a neoprene cover that is weather, ozone and oil resistant. The tube compound is chemical, heat and abrasion resistant.

▲ See Chemical Hose Warnings, pages 9 and 128.



Cover Color: Yellow
Oil Resistance: Medium
Construction:
Tube: CSM Black
Cover: CR
Reinforcement: Spiral steel wire helix(es) between synthetic textile plies
Temperature Range: -40°F to +250°F
 -40°C to +121°C
Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.
Packaging: 100 ft. maximum
 Available in straight ends, uncapped only

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17703010002▲	1	25.40	1.50	38.10	2	200	1.38	2.50	63.50	0.57	0.85
17703015002	1-1/2	38.10	2.00	50.80	2	150	1.03	4.50	114.30	0.83	1.24
17703020002	2	50.80	2.50	63.50	2	150	1.03	6.00	152.40	1.08	1.61
17703030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.81	2.69
17703040002▲	4	101.60	4.63	117.48	2	100	0.69	12.00	304.80	2.45	3.65


▲ = Make To Order (MTO)

TRANSPORTER® CHEMICAL V

Transporter Chemical V hose is capable of handling aromatic and aliphatic hydrocarbons and halo generated hydrocarbons. Chemical V hose will also handle animal oil, vegetable oil, and a wide range of chemicals. The NBR/PVC cover is both oil and abrasion resistant. The reinforcement of a spiral steel helix between synthetic textile plies enables this hose to be rated at **full vacuum**.

▲ See Chemical Hose Warnings, pages 9 and 128.



Resistance:

Branding:
HBD Industries Transporter Chemical V Made In USA

Cover Color: Orange
Oil Resistance: Medium
Construction:
Tube: FKM, 1-1/2" and 2" I.D. – 1/8" thick
 3" I.D. and larger – 3/16" thick
 Exceeds RMA Class A
Cover: NBR/PVC
Reinforcement: Spiral steel wire helix(es) between synthetic textile plies
Temperature Range: -20°F to +250°F
 -29°C to +121°C
Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.
Packaging: 100 ft. maximum
 Available in straight ends, uncapped only

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17701115002▲	1-1/2	38.10	2.06	52.39	2	150	1.03	4.00	101.60	1.20	1.79
17701120002▲	2	50.80	2.56	65.09	2	150	1.03	6.00	152.40	1.50	2.23
17701130002▲	3	76.20	3.69	93.66	2	150	1.03	9.00	228.60	2.40	3.57
17701140002▲	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	3.40	5.06

▲ = Make To Order (MTO)

TRANSPORTER® MULTI-CHEM®

Transporter Multi-Chem hose has been designed to be able to transfer chemicals and solvents. The XLPE tube is capable of resisting approximately 90% of all industrial chemicals. **Exceptions include elevated temperatures and strong oxidizing acids such as nitric acid and chromic. The maximum temperature rating for most chemicals is 150°F.** The green EPDM cover is abrasion and chemical resistant. This is a **full vacuum** hose.

Note: Working pressures reflect a permanent type coupling such as swage or internally expanded. For banded type couplings, the working pressure should reflect 65% of the ratings listed. ▲ See Chemical Hose Warnings, pages 9 and 128.



Resistance:

Branding:
Thermoid HBD Industries Transporter Multi-Chem Made In USA

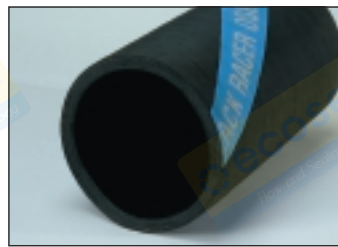
Cover Color: Green
Oil Resistance: High at 70°F, not rated at 140°F
Construction:
Tube: XLPE
Cover: EPDM
Reinforcement: Synthetic textile cords with wire helix(es)
Temperature Range: Maximum temperature limitation 150°F (66°C) for most chemicals
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Black	Green										
N 17704600002	1	25.40	1.69	42.86	2	200	1.38	5.00	127.00	0.80	1.19
N 17704601002▲	1-1/4	31.75	1.94	49.21	2	200	1.38	7.00	177.80	1.00	1.49
N 17704602002	1-1/2	38.10	2.19	55.56	2	200	1.38	8.00	203.20	1.10	1.64
N 17704603002	2	50.80	2.81	71.44	2	200	1.38	9.00	228.60	1.70	2.53
N 17704608002▲	2-1/2	63.50	3.34	84.93	2	150	1.03	12.00	304.80	2.38	3.54
N 17704604002▲	3	76.20	3.91	99.22	2	150	1.03	16.00	406.40	2.70	4.02
N 17704605002▲	4	101.60	4.81	122.24	2	150	1.03	21.00	533.40	3.50	5.21

N = Non-Stock. All sizes available in black cover, contact Salisbury
 ▲ = Make To Order (MTO)

BLACK RACER™ OS & D

Black Racer Oil Suction and Discharge hose is designed for barge or dock service handling, gasoline, oil and other petroleum products. This hose features smooth bore construction with a polyester tire cord, wire helix reinforcement. This makes the hose suitable for **full vacuum (30 inches of Hg)** and 200 psi discharge. Long 100 ft. lengths helps cut down on connection problems. Black Racer meets the U.S. Coast Guard requirements.



Resistance:



Branding:

Thermoid HBD Industries Inc.
Black Racer Oil S & D
Made In USA

Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: CR
Reinforcement: Polyester tire cord, with a wire helix(es)
Temperature Range: -20°F to +200°F
 -29°C to +93°C
Packaging: 100 ft. maximum
 Hand built – \$250.00 minimum order per size
Couplings: Constrictor swage couplings

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854034002▲	4	101.60	5.00	127.00	4	200	1.38	22.00	558.80	4.20	6.25
34854036002▲	6	152.40	7.13	180.98	4	200	1.38	35.00	889.00	7.60	11.31
34854038002▲	8	203.20	9.19	233.36	4	200	1.38	46.00	1168.40	10.60	15.78

▲ = Make To Order (MTO)

Fixed Flanges

Product Number	Size
34941040001▲	4
34941060001▲	6
34941080001▲	8

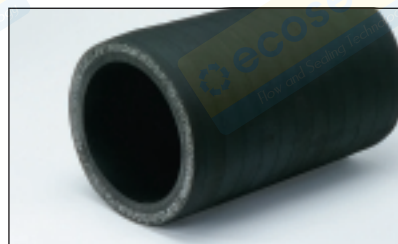
Floating Flanges

Product Number	Size
34942040001	4
34942060001	6
34942080001	8

▲ = Make To Order (MTO)

CHEMICAL & SOLVENT – UHMW POLYETHYLENE LINING (Smooth Bore)

Chemical and Solvent hose is used for the transfer of solvents and chemicals between the dock and barges or the dock and tankers. Like all Thermoid dock loading hose, this hose meets all U.S. Coast Guard requirements. The neoprene cover is resistant to abrasion, weathering and ozone.



Resistance:



Branding:

None

Cover Color: Black
Oil Resistance: High at +70°F, not rated at +140°F
Construction:
Tube: UHMWPE
Cover: CR
Reinforcement: Single steel wire helix(es) spiralled between multiple plies of synthetic tire cord
Temperature Range: -20°F to +180°F
 -29°C to +82°C
Packaging: 50 ft. maximum
 Hand built – \$250.00 minimum order per size
Couplings: Swaged

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434456502▲	4	101.60	5.25	133.35	4	200	1.38	36.00	914.40	5.20	7.74
11434458502▲	6	152.40	7.38	187.33	4	200	1.38	48.00	1219.20	10.70	15.92
11434460502▲	8	203.20	9.63	244.48	4	200	1.38	64.00	1625.60	14.80	22.03
11434462502▲	10	254.00	11.94	303.21	6	200	1.38	80.00	2032.00	20.70	30.81

▲ = Make To Order (MTO)

HY-FLEX™ 200/275/300 DOCK-NYLON/UHMWPE TUBE (Rough Bore)

Hi-Flex Dock hose is ideal for use with chemicals, oils and hydrocarbons to 100%, as well as MTBE's to 100%. This hose comes in three grades of working pressures, 200, 275 and 300 for higher pressure applications. These working pressures are due to the polyester tire cord with steel wire helix(es) reinforcement. The nylon tube liner allows a smooth flow of product through the system. All Thermoid dock loading hose meets U.S. Coast Guard requirements.



Resistance:



Branding:

Thermoid/HBD Industries Hy-Flex OS&D 275 psi WP Conforms to USCG 33 CFR 1545 suitable for up to 100% aromatics Made In USA



Resistance:



Branding:

Thermoid/HBD Industries Hy-Flex OS&D 300 psi WP Conforms to USCG 33 CFR 1545 suitable for up to 100% aromatics Made In USA

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** Round, galvanized bore wire, plain unbonded nylon liner, UHMWPE liner
 - Cover:** CR
 - Reinforcement:** Polyester tire cord, high strength steel wire helix(es)
- Temperature Range:** -20°F to +180°F
-29°C to +82°C
- Packaging:** Hand built
- Couplings:** Swage. Fixed or floating 150# or 300# flange each end

HY-FLEX 200

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854210502▲	4	101.60	5.19	131.76	2	200	1.38	14.00	355.60	4.50	6.70
34854215502▲	6	152.40	7.50	190.50	2	200	1.38	21.00	533.40	8.40	12.50
34854220502▲	8	203.20	9.75	247.65	4	200	1.38	29.00	736.60	14.00	20.84
34854225502▲	10	254.00	11.94	303.21	6	200	1.38	36.00	914.40	22.50	33.49

All sizes have 30 inches of mercury vacuum

HY-FLEX 275

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854240502▲	4	101.60	5.25	133.35	4	275	1.90	16.00	406.40	4.50	6.70
34854245502▲	6	152.40	7.50	190.50	4	275	1.90	21.00	533.40	8.40	12.50
34854250502▲	8	203.20	9.94	252.41	4	275	1.90	31.00	787.40	16.00	23.81
34854255502▲	10	254.00	11.94	303.21	6	275	1.90	38.00	965.20	22.50	33.49

All sizes have 30 inches of mercury vacuum

HY-FLEX 300

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854270502▲	4	101.60	5.25	133.35	4	300	2.07	16.00	406.40	4.50	6.70
34854275502▲	6	152.40	7.50	190.50	4	300	2.07	23.00	584.20	8.40	12.50
34854280502▲	8	203.20	9.94	252.41	6	300	2.07	31.00	787.40	15.00	22.32
34854285502▲	10	254.00	11.94	303.21	6	300	2.07	38.00	965.20	22.50	33.49

All sizes have 30 inches of mercury vacuum

▲ = Make To Order (MTO)

SAFETYFLEX®

Safetyflex is a premium hose used in the loading and unloading of gasoline, oil, and other petroleum products at dock installations. This hose features exceptional strength (a 13:1 safety factor) that is much greater than conventional hose. Safetyflex features amazing flexibility and durability with a unique coupling design that protects against blow-offs and leaks. The neoprene cover is designed to resist abrasion, weather, oil and gasoline. The reinforcement of layers of spiraled high-tensile steel wire, synthetic fabric plies between the wire and tube, provide exceptional strength, long life, maximum flexibility, and guards against bursting even at high working pressures. Safetyflex, like all Thermoid dock loading hoses, meets all U.S. Coast Guard requirements.



Resistance:



Branding:

Thermoid HBD Industries
Safetyflex Oil Service 300 PSI WP
Made In USA

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR, RMA Class A - other elastomers available upon request
 - Cover:** CR
 - Reinforcement:** Layers of spiraled high-tensile steel wire embedded in the hose body with a rubber cushion between each ply
- Temperature Range:** -20°F to +200°F
-29°C to +93°C
- Packaging:** 100 ft. maximum
Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854430002▲	3	76.20	4.44	112.71	4	300	2.07	12.00	304.80	6.90	10.27
34854435002▲	4	101.60	5.19	131.76	4	300	2.07	16.00	406.40	7.50	11.16
34854440002▲	6	152.40	7.50	190.50	6	300	2.07	24.00	609.60	15.70	23.69
34854445002▲	8	203.20	9.69	246.06	8	300	2.07	32.00	812.80	22.70	40.38

▲ = Make To Order (MTO)

SAFETYFLEX WATER JETTING

Safetyflex Water Jetting is a rugged, heavy-duty, wire reinforced hose for inland water ways and off shore high pressure water jetting service. Safetyflex Water Jetting hose is suitable for high flow velocity (70 ft. per second) service. The multiple plies of plated steel wire reinforcement enable this hose to provide up to 1500 psi working pressure. SafetyFlex Water Jetting hose meets all U.S. Coast Guard requirements. The neoprene cover provides resistance to abrasion, weathering and ozone.



Resistance:



Branding:

Thermoid/HBD Industries, Inc. –
1500 PSI WP Jetting
Made In USA

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR, RMA Class A
 - Cover:** CR, taped, wrapped exterior finish
 - Reinforcement:** Multiple plies of plated steel wire
- Temperature Range:** -20°F to +200°F
-29°C to +93°C
- Packaging:** 100 ft. maximum
Hand built – \$250.00 minimum order per size
Pressures up to 2500 psi WP in sizes up to 8" I.D. are also available. Contact Salisbury customer service.
Straight end hose or coupled assemblies shipped on reels or in crates.
8" I.D. hose or assemblies over 60 ft. long require special packaging or shipping.

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854460002▲	4	101.60	5.19	131.76	4	1500	10.34	16.00	406.40	7.80	11.61
34854465002▲	6	152.40	7.50	190.50	6	1500	10.34	24.00	609.60	14.10	23.69
34854470002▲	8	203.20	9.75	247.65	8	1500	10.34	32.00	812.80	22.40	40.38

▲ = Make To Order (MTO)

SUBMARINE 225 PSI (Smooth Bore)

Thermoid's Submarine hose is recommended for oil transfer applications in submarine installations where the hose is either partially or totally submerged. Submarine 225 hose features a neoprene cover, which is very abrasion resistant, a breaker strip and a tough inner cover. This extra heavy construction is kink resistant, and resists end pulls associated with this application. The neoprene cover has been designed to resist long periods of being submerged. The galvanized steel helix with multiple plies of steel cord enables this hose to handle up to 225 psi in working pressure. Submarine 225 hose meets all U.S. Coast Guard requirements.



Resistance:



Branding:

Thermoid HBD Industries
Submarine Service 225# PSI
Made In USA

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR, RMA Class A - other elastomers available upon request
 - Cover:** CR, double thickness (.282" with nylon breaker)
 - Reinforcement:** Galvanized steel wire helix(es) spiralled between multiple plies of synthetic cord
- Temperature Range:** -20°F to +180°F
-29°C to +82°C
- Packaging:** 50 ft. maximum
Hand built – \$250.00 minimum order per size
- Couplings:** BIN. Available to meet OCIMF specifications with galvanized weld neck flanges plus x-ray tested welds

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11436006002▲	6	152.40	8.34	423.86	6	225	1.55	24.00	609.60	15.70	23.37
11436008002▲	8	203.20	10.44	265.11	6	225	1.55	32.00	812.80	22.30	33.19
11436010002▲	10	254.00	12.38	314.33	6	225	1.55	40.00	1016.00	29.10	43.31
11436012002▲	12	304.80	14.88	377.83	8	225	1.55	48.00	1219.20	39.40	58.64

▲ = Make To Order (MTO)

TANKMASTER® HOT ASPHALT (Smooth Bore)

Tankmaster Hot Asphalt hose is designed to handle the transfer of petroleum based materials such as tar, hot oils and asphalt, of course.

The temperatures of these materials should not exceed +350°F. The neoprene tube and cover provide excellent resistance to weathering and oils. The reinforcement of multiple plies of synthetic cord with a wire helix enables this hose to work at a top working pressure of 200 psi. All Thermoid dock loading hose meets the U.S. Coast Guard requirements.



Resistance:



Branding:

Thermoid HBD Industries
Tankmaster Hot Asphalt
Made In USA -20°F to +350°F

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** CR
 - Cover:** CR
 - Reinforcement:** Single wire helix(es) spiralled between multiple plies of synthetic cord.
- Temperature Range:** -20°F to +350°F
-29°C to +177°C
- Packaging:** 100 ft. maximum
Hand built – \$250.00 minimum order per size
- Couplings:** Swaged couplings or built-in nipples

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434720502▲	4	101.60	5.06	128.59	4	200	1.38	24.00	609.60	5.40	8.04
11434722502▲	6	152.40	7.56	192.09	4	200	1.38	36.00	914.40	11.50	17.11
11434724502▲	8	203.20	9.63	244.48	6	200	1.38	48.00	1219.20	17.50	26.04
11434726502▲	10	254.00	11.88	301.63	8	200	1.38	60.00	1524.00	22.50	33.49

▲ = Make To Order (MTO)

TANKMASTER® K200 OIL SUCTION & DISCHARGE 200 PSI (Smooth Bore)

Tankmaster K200 Oil Suction and Discharge hose is recommended for the transfer of petroleum based products. The smooth bore promotes an even flow through the system. The reinforcement of multiple plies of spiral tire cords with a dual steel helix allows this hose to handle up to 200 psi working pressure. Tankmaster K200 does meet all the specifications of the USCG and RMA Type 1, Class 2 regulations. The 100 ft. lengths help cut down on connection problems. Tankmaster K200, like all dock loading hose, meets the U.S. Coast Guard requirements.



Resistance:	
Branding:	Thermod HBD Industries Tankmaster K200 Oil Suction & Discharge 200 PSI Smooth Bore Made In USA

Cover Color:	Black
Oil Resistance:	High
Construction:	
Tube:	NBR, RMA Class A
Cover:	CR - corrugated, double pitch
Reinforcement:	Dual steel wire helix(es) spiralled between multiple plies of spiral tire cords
Temperature Range:	-20°F to +200°F -29°C to +93°C
Packaging:	100 ft. maximum Hand built – \$250.00 minimum order per size
Couplings:	Swage only

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434520502▲	4	101.60	5.00	127.00	4	200	1.38	15.00	381.00	5.00	7.44
11434521502▲	6	152.40	7.31	185.74	4	200	1.38	22.00	558.80	9.30	13.84
11434523502▲	8	203.20	9.63	244.48	4	200	1.38	30.00	762.00	14.20	21.13
11434525502▲	10	254.00	11.88	301.63	6	200	1.38	36.00	914.40	20.00	29.77

▲ = Make To Order (MTO)

TANKMASTER® OIL DISCHARGE (Smooth Bore)

Use Tankmaster Oil Discharge hose in discharge applications only. This hose handles gasoline, oils and other petroleum distillates. This hose is lightweight and resistant to petroleum products with aromatic content up to 50%. The multiple plies of synthetic cord reinforcement enable this hose to operate smoothly even up to working pressures of 200 psi. The neoprene cover and resistant to abrasions, weathering and ozone. Tankmaster Oil Discharge hose meets the requirements of the U.S. Coast Guard regulations.



Resistance:	
Branding:	Thermod HBD Industries Tankmaster Oil Discharge Made In USA

Cover Color:	Black
Oil Resistance:	High
Construction:	
Tube:	NBR, RMA Class A
Cover:	CR
Reinforcement:	Multiple plies of synthetic cord
Temperature Range:	-20°F to +200°F -29°C to +93°C
Packaging:	100 ft. maximum
Couplings:	Swaged couplings through 10" I.D. or built-in nipples through 12" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434650502▲	4	101.60	4.88	123.83	4	200	1.38	n/a	n/a	2.80	4.17
11434655502▲	6	152.40	7.00	177.80	4	200	1.38	n/a	n/a	4.90	7.29
11434660502▲	8	203.20	9.31	236.54	6	200	1.38	n/a	n/a	7.70	11.46
11434665502▲	10	254.00	11.19	284.16	6	200	1.38	n/a	n/a	8.30	12.35
11434670502▲	12	304.80	13.41	340.52	6	200	1.38	n/a	n/a	13.30	19.79

▲ = Make To Order (MTO)
n/a = Not Applicable

TANKMASTER® 200/225 - FKM LINING (Smooth Bore)

Tankmaster 200/225 hose is recommended for the transfer of aromatic hydrocarbons. This hose has been designed to handle **full vacuum** applications. Also, the Tankmaster 200/225 hose will handle discharge applications up to 200 psi. The multiple plies of synthetic cord with a helical wire reinforcement allow this hose to maintain its roundness. Tankmaster 200/225 hose meets all U.S. Coast Guard requirements.



Resistance:



Branding:

Thermoid HBD Industries
Tankmaster 200
Made In USA

Cover Color: Black
Oil Resistance: High
Construction:
Tube: FKM Fluoroelastomer
Exceeds RMA Class A
Cover: CR
Reinforcement: Single wire helix(es) spiralled between multiple plies of synthetic cord
Temperature Range: -20°F to +200°F
-29°C to +93°C
Packaging: 100 ft. maximum
Couplings: Swaged

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434950502▲	4	101.60	5.31	134.94	4	200	1.38	24.00	609.60	7.50	11.16
11434955502▲	6	152.40	7.63	193.68	4	200	1.38	36.00	914.40	11.60	17.26
11434960502▲	8	203.20	9.63	244.48	4	200	1.38	48.00	1219.20	20.30	30.21
11434965502▲	10	254.00	11.88	301.63	6	200	1.38	60.00	1524.00	28.10	41.82

▲ = Make To Order (MTO)

TANKMASTER® NBR LINING 200 (Smooth Bore)

Tankmaster NBR Lining 200 hose is designed to handle **full vacuum** or suction and discharge for barge or dock service. This includes the loading or unloading of gasoline, oils and other petroleum products. Static wire is included. The multiple ply synthetic cord with a wire helix reinforcement gives a constant working pressure of 200 psi for all sizes. All U.S. Coast Guard requirements are met by this hose.



Resistance:



Branding:

Thermoid HBD Industries
Tankmaster 200 Smooth Bore
Oil Suction & Discharge 200 PSI
Made In USA

Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A - other elastomers available upon request
Cover: CR
Reinforcement: Multiple plies of synthetic cord with wire helix(es) embedded in the hose body
Temperature Range: -20°F to +200°F
-29°C to +93°C
Packaging: 100 ft. maximum
Hand built - \$250.00 minimum order per size
Ends: Built-in nipples through 12" I.D.
Swaged couplings through 10" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434480502▲	4	101.60	5.00	127.00	4	200	1.38	24.00	609.60	6.00	8.93
11434482502▲	6	152.40	7.31	185.74	4	200	1.38	36.00	914.40	10.50	15.63
11434484502▲	8	203.20	9.63	244.48	4	200	1.38	48.00	1219.20	15.10	22.47
11434486502▲	10	254.00	11.88	301.63	6	200	1.38	60.00	1524.00	22.00	32.74
11434488502▲	12	304.80	14.03	356.39	6	200	1.38	72.00	1828.80	30.50	45.39

▲ = Make To Order (MTO)

FISH SUCTION

Fish Suction Hose is designed for the vacuum removal of fish from a ship's hold. The neoprene tube and cover are cut and abrasion resistant. This hose can come with a variety of ends; enlarged, straight or BIN with flanges. Fish Suction hose is rated at **full vacuum** since it is constructed with a reinforcement of a spring steel wire helix between multiple plies of reinforcement.



Resistance:



Branding:

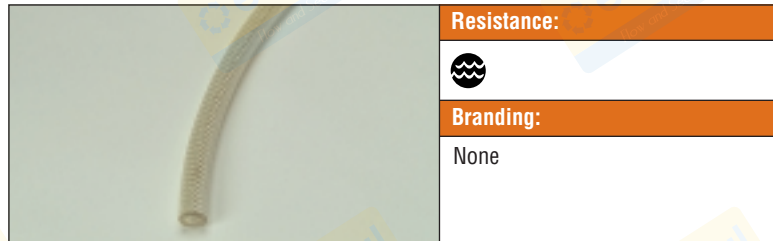
Thermoid HBD Industries
Fish Suction Hose 100 psi WP CR Tube
Made In USA

Cover Color: Black
Oil Resistance: Medium
Construction:
Tube: 1/4" CR
Cover: CR
Reinforcement: Spring steel wire helix(es) spiralled between multiple plies of polyester cord
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: Make To Order
 Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11465520502	8	203.20	9.63	244.48	4	100	0.69	80.00	2032.00	19.00	28.28
11465522502	10	254.00	12.00	304.80	5	100	0.69	100.00	2540.00	25.00	37.21
11465524502	12	304.80	14.13	358.78	6	100	0.69	120.00	3048.00	31.00	46.14

KOROBRAID® TUBING

Korobraid Tubing features a specially reinforced polyester cord braided within the PVC tube wall. This tubing will withstand about four times the normal working pressure. The PVC tube and cover is non-toxic, meets FDA requirements and also offers excellent clarity.



Resistance:



Branding:

None

Physical Properties

Safety Factor 4:1
 Odor None
 Taste None
 Flame-proofness Self-extinguishing
 Minimum Bend Radius 5 x I.D.

Cover Color: Clear
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Polyester cord
Temperature Range: -20° to +120°F
 -29°C to +49°C
Packaging: Full coil shipments only

Product Number	Nominal I.D.		Nominal O.D.		Wall Thickness	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/Cft)	(Kg/m)
19340253002	1/4	6.35	0.50	12.70	1/8	350	2.41	n/a	n/a	.08	0.12
19340383002	3/8	9.53	0.63	15.88	1/8	275	1.89	n/a	n/a	.11	0.16
19340503002	1/2	12.70	0.81	20.64	1/8	250	1.72	n/a	n/a	.17	0.25
19340612002	5/8	15.88	1.00	25.40	3/16	225	1.55	n/a	n/a	.26	0.39
19340752002	3/4	19.05	1.00	25.40	1/8	200	1.38	n/a	n/a	.30	0.47
19341002002▲	1	25.40	1.50	38.10	1/4	150	1.03	n/a	n/a	.39	0.58

▲ = Make To Order (MTO)
 n/a = Not Applicable

KOROKLEAR® TUBING

Koroklear is a non-toxic tubing which meets the criteria requirements of FDA and the 3A Plastics Standard for Milk Products. Koroklear is made from crystal clear, tough formulation PVC.

Physical Properties

Durometer, Shore "A"	ASTM-D-676	70
Specific Gravity	ASTM-D-792-66	1.23
Ultimate Tensile Strength (psi)	ASTM-D-412	2400
Ultimate Elongation (%)	ASTM-D-412	390
100% Modulus	ASTM-D-412	1200

Recommended working pressure for intermittent pressure only. The figures on the chart are based on 70°F temperature.



Resistance:



Branding:

None

Cover Color: Clear
Oil Resistance: Medium
Construction:

Tube: PVC
Cover: PVC
Reinforcement: N/A
Temperature Range: 0°F to +100°F
 -18°C to +38°C

Packaging: Full carton shipments only
 P/Ns KK1 through KK37 – 100 ft. per carton
 Larger sizes are packed 50 ft. per carton
 Make-To-Order (MTO) orders have a stand alone minimum charge of \$100.00

Product Number	Nominal I.D.		Nominal O.D.		Wall Thickness	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/Cft)	(Kg/m)
19330204002	1/8	3.18	0.25	6.35	1/16	68	0.47	n/a	n/a	.02	0.03
19330304002	3/16	4.76	0.31	7.94	1/16	55	0.38	n/a	n/a	.04	0.06
19330306002	3/16	4.76	0.38	9.53	3/32	70	0.48	n/a	n/a	.05	0.07
19330308002	3/16	4.76	0.44	11.11	1/8	80	0.55	n/a	n/a	.05	0.07
19330406002	1/4	6.35	0.44	11.11	3/32	60	0.41	n/a	n/a	.07	0.10
19330504002	5/16	7.94	0.44	11.11	1/16	50	0.34	n/a	n/a	.04	0.06
19330506002	5/16	7.94	0.50	12.70	3/32	60	0.41	n/a	n/a	.07	0.10
19330604002	3/8	9.53	0.50	12.70	1/16	40	0.28	n/a	n/a	.05	0.07
19330606002	3/8	9.53	0.56	14.29	3/32	50	0.34	n/a	n/a	.08	0.12
19330608002	3/8	9.53	0.63	15.88	1/8	65	0.45	n/a	n/a	.12	0.18
19330804002	1/2	12.70	0.63	15.88	1/16	30	0.21	n/a	n/a	.08	0.12
19330808002	1/2	12.70	0.75	19.05	1/8	45	0.31	n/a	n/a	.14	0.21
19331008002	5/8	15.88	0.88	22.23	1/8	40	0.28	n/a	n/a	.17	0.25
19331208002	3/4	19.05	1.00	25.40	1/8	35	0.24	n/a	n/a	.21	0.31
19331210002	3/4	19.05	1.06	26.99	5/32	40	0.28	n/a	n/a	.26	0.39
19331408002	7/8	22.23	1.13	28.58	1/8	30	0.21	n/a	n/a	.24	0.36
19331608002	1	25.40	1.25	31.75	1/8	28	0.19	n/a	n/a	.27	0.40
19331616002	1	25.40	1.50	38.10	1/4	50	0.34	n/a	n/a	.56	0.83

n/a = Not Applicable

RADIAL FLEX® CLEAR FOOD PROCESSING

Radial Flex Clear Food Processing hose is recommended for fluid-handling needs in the bottling, canning, dairy and related food processing areas. This hose provides excellent service in agricultural irrigation applications. The PVC construction with a helical wire reinforcement enables all sizes to take a **full vacuum** without collapsing. This hose is manufactured from compounds compliant with FDA and 3-A non-toxic specifications. This is satisfactory for the transfer of any liquids or dry material for human consumption. This hose is recommended for use between 0°F to +150°F. Outside these limits, rubber hose is recommended.



Resistance:



Branding:

None

Cover Color: Clear
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical wire
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum, 1" to 4" I.D.

72 Degrees F 150 Degrees F

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19131000002	1	25.40	1.24	31.50	n/a	86	0.59	20	0.14	1.90	48.26	0.26	0.39
19131250002▲	1-1/4	31.75	1.54	39.12	n/a	79	0.54	20	0.14	2.70	68.58	0.37	0.55
19131500002▲	1-1/2	38.10	1.82	46.23	n/a	72	0.50	20	0.14	2.80	71.12	0.44	0.65
19132000002	2	50.80	2.39	60.71	n/a	72	0.50	20	0.14	3.90	99.06	0.74	1.10
19132500002▲	2-1/2	63.50	2.93	74.42	n/a	72	0.50	20	0.14	4.70	119.38	1.01	1.50
19133000002▲	3	76.20	3.43	87.12	n/a	62	0.43	15	0.10	6.10	154.94	1.21	1.80
19134000002▲	4	101.60	4.53	115.06	n/a	55	0.38	15	0.10	9.10	231.14	2.01	2.99

▲ = Make To Order (MTO)
 n/a = Not Applicable

TRANSPORTER® FOOD DISCHARGE

Transporter Food Discharge hose has been designed to handle liquid products including oily edibles. The white nitrile tube will not impart taste or odor to the liquids being transferred. This hose meets FDA requirements. The long 100 ft. lengths help reduce connection problems.



Resistance:



Branding:

Thermod HBD Industries
 Transporter Food Discharge
 FDA Nitrile Tube Made In USA

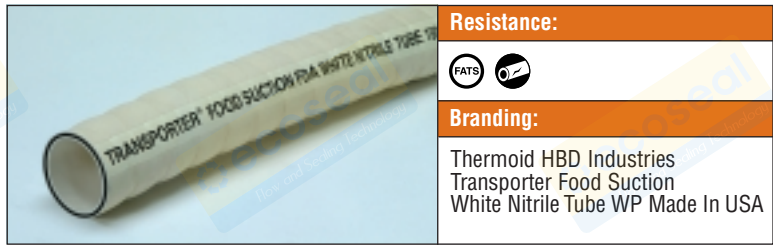
Cover Color: Gray
Oil Resistance: Limited
Construction:
Tube: RMA Class A/B, FDA White, NBR
Cover: Gray NBR/PVC with green stripe
Reinforcement: Synthetic textile plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 100 ft. lengths

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17752020002▲	2	50.80	2.41	61.12	2	150	1.03	n/a	n/a	0.80	1.19
17752025002▲	2-1/2	63.50	2.94	74.61	2	150	1.03	n/a	n/a	1.00	1.49
17752030002▲	3	76.20	3.44	87.31	2	150	1.03	n/a	n/a	1.20	1.79
17752040002▲	4	101.60	4.44	112.71	2	100	0.69	n/a	n/a	1.70	2.53

▲ = Make To Order (MTO)
 n/a = Not Applicable

TRANSPORTER® FOOD SUCTION – White Corrugated Cover

Transporter Food Suction hose is designed to handle a wide variety of liquid products including oily edibles. The white nitrile tube will not impart taste or odor to the liquids being transferred. This hose meets FDA requirements. A reinforcement of a spiral steel wire between synthetic textile plies allows this hose to perform at **full vacuum**.



Resistance:
 
Branding:
Thermoid HBD Industries Transporter Food Suction White Nitrile Tube WP Made In USA

Cover Color: White
Oil Resistance: Limited
Construction:
Tube: RMA Class A/B, FDA White, NBR
Cover: NBR/PVC Corrugated
Reinforcement: Spiral steel wire between synthetic textile plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 100 ft. lengths; minimum run 1200 ft. per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17751112502▲	1-1/4	31.75	1.81	46.04	2	150	1.03	4.00	101.60	0.80	1.19
17751115002	1-1/2	38.10	2.06	52.39	2	150	1.03	4.50	114.30	1.00	1.49
17751120002	2	50.80	2.56	65.09	2	150	1.03	6.00	152.40	1.20	1.79
17751125002▲	2-1/2	63.50	3.13	79.38	2	150	1.03	7.50	190.50	1.70	2.53
17751130002	3	76.20	3.63	92.08	2	150	1.03	9.00	228.60	2.10	3.13
17751140002	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	2.80	4.17

▲ = Make To Order (MTO)

TRANSPORTER® FOOD SUCTION – Gray Smooth Cover

Transporter Food Suction hose is designed to handle a wide variety of liquid products including oily edibles. The white nitrile tube will not impart taste or odor to the liquids being transferred. This hose meets FDA requirements. A reinforcement of a spiral steel wire between synthetic textile plies allows this hose to perform at **full vacuum**.



Resistance:
 
Branding:
Thermoid HBD Industries Transporter Food Suction White Nitrile Tube WP Made In USA

Cover Color: Gray
Oil Resistance: Limited
Construction:
Tube: RMA Class A/B, FDA White, NBR
Cover: Gray NBR/PVC Smooth
Reinforcement: Spiral steel wire between synthetic textile plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 100 ft. lengths

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17750015002▲	1-1/2	38.10	2.06	52.39	2	150	1.03	4.50	114.30	1.00	1.49
17750020002	2	50.80	2.56	65.09	2	150	1.03	6.00	152.40	1.20	1.79
17750030002	3	76.20	3.63	92.08	2	150	1.03	9.00	228.60	2.20	3.27
17750040002▲	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	2.90	4.32

▲ = Make To Order (MTO)

TRANSPORTER® GRAY SHADOW FOOD SUCTION

Transporter Gray Food Suction hose is designed to handle a wide variety of liquid products, including oily edibles. The white nitrile tube will not impart taste or odor to the liquids being transferred. This hose meets the requirements of the FDA and USDA regulations. The dual wire helix in the multiple plies of reinforcement, maintains the roundness of the hose. This combination also allows hose to be rated at **full vacuum** as well as a constant 150 psi working pressure on all sizes.



Resistance:



Branding:

Thermoid/HBD Industries Inc.
Gray Shadow Food 150 PSI WP
Made In USA

- Cover Color:** Gray
- Oil Resistance:** Limited
- Construction:**
 - Tube:** Sizes 1-1/2", 2", 2-1/2" have a 3/32" thick tube RMA Class A/B, NBR
 - Cover:** NBR/PVC, gray, deep corrugations with a flat hose exterior
 - Reinforcement:** Multiple synthetic textile colors with dual wire helix(es)
- Temperature Range:** -30°F to +200°F
-34°C to +93°C
- Packaging:** 100 ft. lengths; minimum run is 1200 ft. per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17751240002	1-1/2	38.10	2.19	55.56	2	150	1.03	3.00	76.20	1.20	1.79
17751250002	2	50.80	2.69	68.26	2	150	1.03	4.00	101.60	1.60	2.38
17751260002▲	2-1/2	63.50	3.22	81.76	2	150	1.03	5.00	127.00	2.00	2.98
17751270002	3	76.20	3.72	94.46	2	150	1.03	6.00	152.40	2.30	3.42
17751280002	4	101.60	4.80	121.84	2	150	1.03	8.00	203.20	3.40	5.06

▲ = Make To Order (MTO)

TYPE 95 FOOD – Gray Cover

Type 95 Food hose has been engineered to handle sugar and flour bulk truck usage and other pneumatically conveyed non-fat food handling services. It has also been designed to handle a **vacuum rating of 15 inches of mercury**. Type 95 Food hose can be used for plastic pellets and powders where contamination is a problem. This hose complies with current FDA regulations regarding aqueous foods. Depending on the application, this hose can be furnished with or without a static wire. It also can be furnished with straight or enlarged ends. The 3/16" thick natural rubber tube and 1/16" thick SBR cover are both abrasion resistant. The two to three plies of reinforcement give this hose flexibility. The helical wire maintains the roundness of the hose.



Resistance:



Branding:

Thermoid HBD Industries
Type 95 Food Handling Hose
Made In USA

- Cover Color:** Gray
- Oil Resistance:** Limited
- Construction:**
 - Tube:** 3/16" thick amber colored NR, non-toxic
 - Cover:** 1/16" thick gray SBR rubber – corrugated
 - Reinforcement:** Two to three plies of fabric with helical wire
- Temperature Range:** -40°F to +160°F
-40°C to +71°C
- Packaging:** 50 ft. lengths maximum, for flour use 25 ft. maximum
Hand built – \$250.00 minimum order per size
Specify **static ground wire**, if required. Will be built and grounded – no charge

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11454533502▲	3	75.20	3.88	98.43	2	15	0.10	18.00	457.20	2.20	3.27
11454534502▲	4	101.60	4.88	123.83	2	15	0.10	24.00	609.60	2.70	4.02
11454535502▲	5	127.00	6.00	152.40	3	15	0.10	30.00	762.00	3.40	5.06
11454536502▲	6	152.40	7.00	177.80	3	15	0.10	36.00	914.40	4.20	6.25

▲ = Make To Order (MTO)

TYPE 96 FOOD – Gray Cover

Type 96 Food hose is the right hose for pneumatic handling of bulk, non-fat foods and gravity-drop service. Type 96 Food hose can be used for handling plastic pellets and powders where contamination is a problem. Excellent for plant process and switch lines. Complies with the Food and Drug Administration current regulations for aqueous foods. This hose has been designed to handle a **vacuum rating of 15 inches of mercury**. Depending on the application, Type 96 Food hose can be furnished with or without a static wire. The natural rubber tube is non-toxic and abrasion resistant. The corrugated SBR cover resists the harmful effects of the weather. The coiled wire in the two plies of reinforcement maintain the roundness of the hose.



Resistance:
Branding:
Thermoid HBD Industries Type 96 Food Handling Hose Made In USA

Cover Color: Gray
Oil Resistance: Limited
Construction:
Tube: Sizes 1-1/2", 2", 2-1/2" have a 3/32" thick tube
 All other sizes have a 1/8" thick tube
 Amber colored NR
Cover: 1/16" thick gray SBR rubber – corrugated
Reinforcement: Two to three plies of fabric with helical wire
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. lengths maximum, for flour use 25 ft. maximum
 Hand built – \$250.00 minimum order per size
 Specify **static ground wire**, if required. Will be built and grounded – no charge

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11454468502▲	1-1/2	38.10	2.00	50.80	2	15	0.10	8.00	203.20	1.00	1.49
11454469502▲	2	50.80	2.50	63.50	2	15	0.10	10.00	254.00	1.10	1.64
11454470502▲	2-1/2	63.50	3.06	77.79	2	15	0.10	13.00	330.20	1.30	1.93
11454471502▲	3	76.20	3.63	92.08	2	15	0.10	15.00	381.00	1.50	2.23
11454472502▲	4	101.60	4.63	117.48	2	15	0.10	20.00	508.00	2.70	4.02
11454473502▲	5	127.00	5.69	144.46	2	15	0.10	25.00	635.00	3.30	4.91
11454474502▲	6	152.40	6.69	169.86	2	15	0.10	30.00	762.00	3.80	5.66
11454476502▲	8	203.20	8.75	222.25	2	15	0.10	40.00	1016.00	6.00	8.93

▲ = Make To Order (MTO)

TYPE 120 FOOD – Gray Cover

Type 120 Food hose is designed for bulk truck discharge and pneumatic handling of non-fat food grade materials, plastic pellets and powders. Type 120 Food hose complies with the current FDA regulations. This hose can be furnished with or without a static wire. It is also available with straight or enlarged ends. The natural rubber tube and SBR cover are both abrasion resistant. The two plies of cord fabric reinforcement allow the hose to be flexible enough to be collapsed and rolled up on itself. In service, this hose will round out when fully pressurized.



Resistance:
Branding:
Thermoid HBD Industries Type 120 Food Handling Hose Made In USA

Cover Color: Gray
Oil Resistance: Limited
Construction:
Tube: 1/8" thick amber colored NR-FDA
Cover: 1/16" thick gray SBR rubber
Reinforcement: Two plies of cord fabric
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. lengths maximum, for flour use 25 ft. maximum
 Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17755010002▲	5	127.00	5.56	141.29	2	15	0.10	n/a	n/a	2.50	3.72
17755012002▲	6	152.40	6.56	166.69	2	15	0.10	n/a	n/a	3.00	4.46

▲ = Make To Order (MTO)
 n/a = Not Applicable

DREDGING SLEEVES

The recommended use for Dredging Sleeves is for the flexible connection between pipes used in dredging service. This hose features a high strength polyester reinforcement that gives this hose a high working pressure (125 psi) with less plies. The SBR/NR tube and cover compound is highly abrasion resistant. The SBR/EPDM cover is also weather resistant.



Resistance:



Branding:

Thermoid HBD Industries
Dredge Sleeves
Made In USA

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR/NR - 3/8" thick
Cover: SBR/EPDM - 3/32" thick
Reinforcement: High strength polyester cord
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. lengths maximum
 Hand built - \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11444520502▲	4-1/2	114.30	5.88	149.23	4	125	0.86	45.00	1143.00	5.70	8.48
11444524502▲	6-5/8	168.28	8.00	203.20	4	125	0.86	66.25	1682.75	8.20	12.20
11444525502▲	8-5/8	219.08	10.19	258.76	6	125	0.86	86.25	2190.75	11.60	17.26
11444527502▲	10-3/4	273.05	12.31	312.74	6	125	0.86	107.50	2730.50	14.60	21.73
11444528502▲	12-3/4	323.85	14.50	368.30	8	125	0.86	127.50	3238.50	18.60	27.68
11444529502▲	14	355.60	15.88	403.23	10	125	0.86	140.00	3556.00	20.40	30.36
11444535502▲	16	406.40	17.75	450.85	10	125	0.86	160.00	4064.00	24.40	36.31
11444537502▲	18	457.20	20.00	508.00	12	125	0.86	180.00	4572.00	37.10	55.21
11444539502▲	20	508.00	22.25	565.15	14	125	0.86	200.00	5080.00	49.70	73.97
11444540502▲	24	609.60	27.50	698.50	18	125	0.86	240.00	6096.00	72.40	107.75

▲ = Make To Order (MTO)

RADIAL FLEX® AIR DUCTING – BLUE

The recommended use for Radial Flex Air Ducting is for air conveying, dry material transfer, dust removal and many other air service applications. The PVC construction with a helical wire reinforcement gives this a smaller bending radius, lighter weight and added flexibility. It has a smooth inner surface for maximum flow rate. It is also non-marking, abrasion resistant, plus resistant to sunlight, ozone and damaging industrial atmospheres. This is **not** designed for liquid or slurry applications. The bright blue color is non-fading. Good for use between 0°F to 150°F. Outside these limits, rubber hose is recommended. This hose has a **vacuum rating of 15 in. of Hg** for each size.



Resistance:



Branding:

None

Cover Color: Blue
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical wire
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum, 1-1/2" to 4" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	70 Degrees F Working Pressure		150 Degrees F Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19031501002▲	1-1/2	38.10	1.33	33.78	n/a	30	0.21	5	0.03	4.00	101.60	0.24	0.36
19032001002▲	2	50.80	2.30	58.42	n/a	25	0.17	5	0.03	5.00	127.00	0.37	0.55
19032501002▲	2-1/2	63.50	2.83	71.88	n/a	25	0.17	5	0.03	6.00	152.40	0.63	0.94
19033001002▲	3	76.20	3.37	85.60	n/a	20	0.14	5	0.03	7.00	177.80	0.74	1.10
19034001002▲	4	101.60	4.44	112.78	n/a	15	0.10	5	0.03	10.00	254.00	1.00	1.49

▲ = Make To Order (MTO)
 n/a = Not Applicable

SAND SUCTION

Sand Suction hose provides a flexible member on the suction side of a dredge for ease of movement of the dredge ladder. This hose also handles applications of severe suction service, sand, gravel and other abrasive materials. This hose features a wide variety of sizes available with two tube thicknesses (3/8" and 1/2"), all of which have excellent weathering abrasion resistance. This hose has been designed to hold a **vacuum rating of 30 inches of mercury** for every size.



Resistance:



Branding:

Thermoid HBD Industries
Sand Suction Made In USA

- Cover Color:** Black
- Oil Resistance:** Limited
- Construction:**
 - Tube:** NR - 3/8" or 1/2" thick
 - Cover:** SBR/EPDM
 - Reinforcement:** Single steel helix spiralled between multiple plies of high tensile square woven polyester
- Temperature Range:** -40°F to +160°F
-40°C to +71°C
- Packaging:** 50 ft. lengths maximum
Hand built – \$250.00 minimum order per size
- Ends:** Built-in nipples, straight or enlarged

3/8" Inner Tube, 30 Inch Hg. Vacuum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11444456502▲	6	152.40	7.88	200.03	5	125	0.86	60.00	1524.00	12.40	18.45
11444457502▲	6-5/8	168.28	8.56	242.89	5	125	0.86	66.25	1682.75	13.90	20.69
11444458502▲	8	203.20	10.00	254.00	5	125	0.86	80.00	2032.00	16.10	23.96
11444459502▲	8-5/8	219.08	10.69	271.46	6	125	0.86	86.25	2190.75	19.50	29.02
11444460502▲	10	254.00	12.25	311.15	6	125	0.86	100.00	2540.00	24.70	36.76
11444461502▲	10-3/4	273.05	13.00	330.20	6	125	0.86	107.50	2730.50	26.40	39.29
11444462502▲	12	304.80	14.31	363.54	7	125	0.86	120.00	3047.00	30.70	45.69
11444463502▲	12-3/4	323.85	15.06	382.59	7	125	0.86	127.50	3238.50	33.00	49.11
11444464502▲	14	355.60	16.44	417.51	8	125	0.86	140.00	3556.00	38.20	56.85
11444466502▲	16	406.40	18.63	473.08	9	125	0.86	160.00	4064.00	45.70	68.01
11444468502▲	18	457.20	20.75	527.05	10	125	0.86	180.00	4572.00	54.60	81.26
11444470502▲	20	508.00	23.06	585.79	11	125	0.86	200.00	5080.00	68.40	101.80

1/2" Inner Tube, 30 Inch Hg. Vacuum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11444586502▲	6	152.40	8.13	206.38	5	125	0.86	60.00	1524.00	14.10	20.98
11444587502▲	6-5/8	168.28	8.81	249.24	5	125	0.86	66.25	1682.75	15.70	23.37
11444588502▲	8	203.20	10.25	260.35	5	125	0.86	80.00	2032.00	19.10	28.43
11444589502▲	8-5/8	219.08	11.00	279.40	6	125	0.86	86.25	2190.75	21.70	32.30
11444590502▲	10	254.00	12.50	317.50	6	125	0.86	100.00	2540.00	27.20	40.48
11444591502▲	10-3/4	273.05	13.25	336.55	6	125	0.86	107.50	2730.50	28.30	42.12
11444592502▲	12	304.80	14.63	371.48	7	125	0.86	120.00	3047.00	33.80	50.30
11444593502▲	12-3/4	323.85	15.38	390.53	7	125	0.86	127.50	3238.50	35.70	53.13
11444594502▲	14	355.60	16.69	423.86	8	125	0.86	140.00	3556.00	41.60	61.91
11444596502▲	16	406.40	18.94	481.01	9	125	0.86	160.00	4064.00	49.50	73.67
11444598502▲	18	457.20	21.00	533.40	10	125	0.86	180.00	4572.00	58.50	87.06
11444599502▲	20	508.00	23.38	593.73	11	125	0.86	200.00	5080.00	73.20	108.94

▲ = Make To Order (MTO)

MATERIAL HANDLING

SAND AND CEMENT DISCHARGE – Black Cover

Sand and Cement Discharge is the right hose for cement and concrete placement and sand slurry discharge applications. This hose is available with two tube thicknesses (1/4" and 1/2") both of which are very abrasion resistant. The black SBR/EPDM cover is resistant to abrasion, moisture, weathering and aging. The 4 to 10 plies of reinforcement allow for a range of working pressures from 60 to 100 psi.



Resistance:



Branding:

Thermoid HBD Industries
Sand and Cement Discharge
Made In USA

Cover Color:	Black
Oil Resistance:	Limited
Construction:	
Tube:	SBR - 1/4" or 1/2" thick
Cover:	SBR/EPDM
Reinforcement:	Wrapped construction with 4 to 10 plies of medium weight duck fabric
Temperature Range:	-40°F to +160°F -40°C to +71°C
Packaging:	50 ft. lengths maximum Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11450025502▲	2-1/2	63.50	3.69	93.66	4	100	0.69	n/a	n/a	3.80	5.66
11450030502▲	3	76.20	4.19	106.36	4	100	0.69	n/a	n/a	4.40	6.55
11450040502▲	4	101.60	5.19	131.76	4	75	0.52	n/a	n/a	5.60	8.33
11450050502▲	5	127.00	6.81	173.04	5	75	0.52	n/a	n/a	10.20	15.18
11450060502▲	6	152.40	7.81	198.44	5	75	0.52	n/a	n/a	11.90	17.71
11450080502▲	8	203.20	9.88	250.83	6	60	0.41	n/a	n/a	16.30	24.26
11450100502▲	10	254.00	12.13	307.98	8	60	0.41	n/a	n/a	23.90	35.57
11450120502▲	12	304.80	14.25	361.95	10	60	0.41	n/a	n/a	28.00	41.67

▲ = Make To Order (MTO)
n/a = Not Applicable

TRANSPORTER® HOT AIR BLOWER

Transporter Hot Air Blower hose is designed to handle air supply service up to 150 psi. This hose is also used for the transferring of hot air to tanks on dry bulk material trucks. This hose features an EPDM tube and cover which offers excellent heat resistance. The EPDM cover also stands up to the effects of ozone and weathering. This construction resists customary transport conditions. This hose is rated at **full vacuum**.



Resistance:



Branding:

Thermoid HBD Industries
Hot Air Blower Made In USA.
-20F to +350F

Cover Color:	Brown
Oil Resistance:	Limited
Construction:	
Tube:	EPDM
Cover:	EPDM
Reinforcement:	Spiral steel wire helix(es) between synthetic textile plies
Temperature Range:	-30°F to +350°F -34 C to +177°C
Packaging:	100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17717025002▲	2-1/2	63.50	3.06	77.79	2	150	1.03	12.50	317.50	1.70	2.53
17717030002	3	76.20	3.56	90.49	2	150	1.03	15.00	381.00	2.00	2.98
17717040002	4	101.60	4.63	117.48	2	150	1.03	18.00	457.20	2.80	4.17

▲ = Make To Order (MTO)

TRANSPORTER® MATERIAL DISCHARGE

Transporter Material Discharge is an extremely versatile discharge hose that will handle non-oily edibles, organic acids and abrasive products. The distinguishing blue SBR cover is abrasion and weather resistant. This hose features a 3/16" thick white natural rubber tube that meets all FDA requirements.



Resistance:



Branding:

Thermoid HBD Industries
Material Discharge FDA White
Natural Rubber Tube WP
Made In USA

- Cover Color:** Blue
- Oil Resistance:** Limited
- Construction:**
 - Tube:** NR, FDA white, nominal 3/16" thick
 - Cover:** SBR
 - Reinforcement:** Multiple plies of synthetic cord and static wire
- Temperature Range:** -40°F to +160°F
-40°C to +71°C
- Packaging:** 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17772020002▲	2	50.80	2.69	68.26	2	150	1.03	n/a	n/a	1.20	1.79
17772030002▲	3	76.20	3.69	93.66	2	150	1.03	n/a	n/a	1.70	2.53
17772040002	4	101.60	4.69	119.06	2	100	0.69	n/a	n/a	2.40	3.57

▲ = Make To Order (MTO)
n/a = Not Applicable

TRANSPORTER® MATERIAL SUCTION

Transporter Material Suction is an extremely versatile suction hose that will handle non-oily edibles, organic acids and abrasive products. The distinguishing blue SBR corrugated cover is abrasion and weather resistant. This hose features a 3/16" thick white natural rubber tube that meets all FDA requirements. This hose is rated at **full vacuum**.



Resistance:



Branding:

Thermoid HBD Industries
Material Suction FDA White
Natural Rubber Tube WP
Made In USA

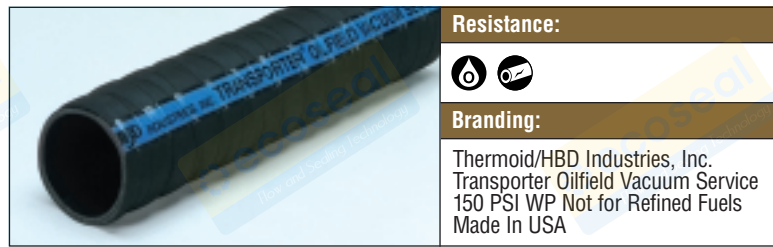
- Cover Color:** Blue
- Oil Resistance:** Limited
- Construction:**
 - Tube:** NR, FDA white, nominal 3/16" thick
 - Cover:** SBR, corrugated
 - Reinforcement:** Synthetic steel wire helix(es) between synthetic textile plies
- Temperature Range:** -40°F to +160°F
-40°C to +71°C
- Packaging:** 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17771115002▲	1-1/2	38.10	2.22	56.36	2	150	1.03	5.00	127.00	1.30	1.93
17771120002▲	2	50.80	2.75	69.85	2	150	1.03	7.00	177.80	1.60	2.38
17771125002▲	2-1/2	63.50	3.38	85.73	2	150	1.03	8.00	203.20	2.30	3.42
17771130002	3	76.20	3.88	98.43	2	150	1.03	9.00	228.60	2.70	4.02
17771140002	4	101.60	4.88	123.83	2	100	0.69	12.00	304.80	4.00	5.95

▲ = Make To Order (MTO)

TRANSPORTER® OIL FIELD VACUUM

Transporter Oil Field Vacuum hose is an economical, lightweight, rugged yet flexible hose designed for the transfer of crude oil, brine water, drilling mud, and diluted solutions of hydrochloric acids and diesel fuels. **Do not use with gasoline and other refined products with aromatic levels exceeding 35%.** This hose features a special fuel and oil resistant NBR/SBR blended compound that meets all the RMA IP-2, Class B oil resistance requirements. The reinforcement of multiple synthetic textile cords with a dual wire helix enables this hose to have a constant working pressure of 150 psi regardless of hose I.D. Transporter Oil Field Vacuum hose is rated at **full vacuum**.



Resistance:



Branding:

Thermoid/HBD Industries, Inc.
Transporter Oilfield Vacuum Service
150 PSI WP Not for Refined Fuels
Made In USA

- Cover Color:** Black
- Oil Resistance:** Medium
- Construction:**
 - Tube:** NBR/SBR, RMA IP-2, Class B
 - Cover:** SBR/EPDM, corrugated
 - Reinforcement:** Multiple synthetic textile cords with dual wire helix(es)
- Temperature Range:** -30°F to +180°F
-34°C to +82°C
- Packaging:** 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17814461002	1-1/2	38.10	1.94	49.21	2	150	1.03	1.50	38.10	0.70	1.04
17814462002	2	50.80	2.44	61.91	2	150	1.03	2.00	50.80	0.90	1.34
17814463002▲	2-1/2	63.50	2.97	75.41	2	150	1.03	2.50	63.50	1.20	1.79
17814464002	3	76.20	3.47	88.11	2	150	1.03	3.00	76.20	1.40	2.08
17814465002	4	101.60	4.55	115.49	2	150	1.03	4.00	101.60	2.30	3.42

▲ = Make To Order (MTO)

TRANSPORTER® PLASTER & CONCRETE

The Transporter Plaster and Concrete hose is designed for rugged service in conveying concrete, grout and plaster-like materials being pumped to construction placement sites at high pressure. This hose features a SBR/NR tube that is static dissipative and abrasion resistant. The black SBR/EPDM cover is abrasion, weather and ozone resistant. The reinforcement of multiple plies of reinforcement enables this hose to perform at a constant working pressure of 800 psi, regardless of the I.D. of the hose.



Resistance:



Branding:

Thermoid HBD Industries
Plaster and Concrete "XXX" PSI
Made In USA

- Cover Color:** Black
- Oil Resistance:** Limited
- Construction:**
 - Tube:** SBR/NR
 - Cover:** SBR/EPDM
 - Reinforcement:** Multiple plies of high strength polyester
- Temperature Range:** -40°F to +160°F
-40°C to +71°C
- Packaging:** 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17779500002▲	1-1/4	31.75	1.88	47.63	4	800	5.51	11.00	279.40	0.90	1.34
17779510002▲	1-1/2	38.10	2.28	57.94	4	800	5.51	13.50	342.90	1.30	1.93
17779515002▲	2	50.80	2.81	71.44	4	800	5.51	18.00	457.20	1.70	2.53
17779520002▲	2-1/2	63.50	3.50	88.90	6	800	5.51	20.00	508.00	2.50	3.72

▲ = Make To Order (MTO)

TRANSPORTER® TYPE 120 DRY CEMENT

Transporter Type 120 Dry Cement hose is recommended for the unloading of dry bulk cement from trailer to storage silo by means of air pressure created in the trailer tank. This hose features a collapsible construction for easier handling and clean-up. The tube compound of SBR/NR blend resists the abrasive action of cement. This hose is also static conductive. The SBR/EPDM cover offers excellent abrasion resistance.



Resistance:
Branding:
Thermoid HBD Industries Tube Size Type 120 Dry Cement/Dry Material Made In USA

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR/NR
Cover: SBR/EPDM, 1/16" thick
Reinforcement: Two plies of cord fabric
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17774454002	4	101.60	4.44	112.71	2	50	0.34	n/a	n/a	1.50	2.23
17774456002	4	101.60	4.56	115.89	2	50	0.34	n/a	n/a	2.00	2.98
17774458002	4	101.60	4.70	119.46	2	50	0.34	n/a	n/a	2.60	3.87

n/a = Not Applicable

Product Number	Tube Thickness (nominal)
17774454002	1/8
17774456002	3/16
17774458002	1/4

TYPE 101 MATERIAL HANDLING – Black Cover

Type 101 Material Handling hose has been designed to handle applications where a vacuum rating of 20 inches of Hg is required for discharge of open-end services. This hose can also handle air-suspended materials such as hay, silage, canning waste, dried leaves and street litter. This hose is lightweight, extremely easy to handle. This hose is available with straight or enlarged ends.



Resistance:
Branding:
Thermoid HBD Industries Type 101 Material Handling Made In USA

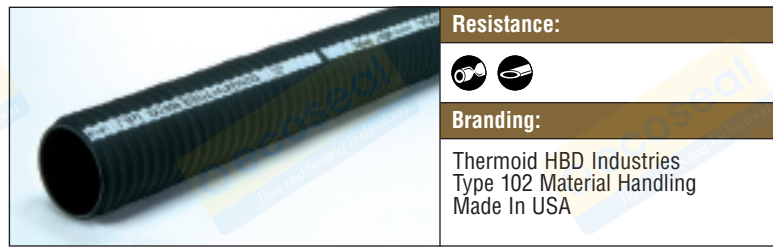
Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR/NR - 1/16" thick
Cover: SBR/EPDM - corrugated
Reinforcement: One wrapped ply of very lightweight fabric. Steel helix(es) wire resists collapse. Extra ply reinforcement at the ends. Standard 3" long straight blank ends.
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 30 ft. lengths maximum
 Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11470020502▲	2	50.80	2.50	63.50	1	20	0.14	6.00	152.40	0.60	0.89
11470025502▲	2-1/2	63.50	3.00	76.20	1	20	0.14	8.00	203.20	0.70	1.04
11470030502▲	3	76.20	3.50	88.90	1	20	0.14	9.00	228.60	0.80	1.19
11470035502▲	3-1/2	88.90	4.00	101.60	1	20	0.14	11.00	279.40	1.00	1.49
11470040502▲	4	101.60	4.50	114.30	1	20	0.14	12.00	304.80	1.10	1.64
11470050502▲	5	127.00	5.50	139.70	1	15	0.10	15.00	381.00	1.30	1.93
11470060502▲	6	152.40	6.50	165.10	1	15	0.10	18.00	457.20	1.60	2.38
11470080502▲	8	203.20	8.50	215.90	1	15	0.10	24.00	609.60	2.30	3.42
11470100502▲	10	254.00	10.50	266.70	1	10	0.07	30.00	762.00	2.90	4.32
11470120502▲	12	304.80	12.50	317.50	1	10	0.07	36.00	914.40	3.50	5.21
11470140502▲	14	355.60	14.50	368.30	1	10	0.07	42.00	1066.80	4.30	6.40
11470160502▲	16	406.40	16.50	419.10	1	10	0.07	48.00	1219.20	5.20	7.74

▲ = Make To Order (MTO)

TYPE 102 MATERIAL HANDLING

Type 102 Material Handling hose is used in those areas where those applications require either a **full vacuum rating** or 150 psi working pressure. This hose has been specifically designed to be compatible with 2 piece aluminum coupling for ease of field installation. The reinforcement of polyester plies with a helical wire allows Type 102 Material Handling hose to resist crushing, kinking or collapsing.



Resistance:	
Branding:	Thermoid HBD Industries Type 102 Material Handling Made In USA

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: NR - tan. 40 durometer
Cover: SBR/EPDM - corrugated
Reinforcement: Wrapped construction with polyester plies and a steel wire helix(es)
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 30 ft. lengths maximum
 Hand built - \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11476003502▲	3	76.20	4.50	114.30	3	150	1.03	18.00	457.20	5.10	7.59
11476004502▲	4	101.60	5.25	133.35	3	150	1.03	24.00	609.60	5.50	8.19
11476005502▲	5	127.00	6.44	163.51	3	150	1.03	30.00	762.00	8.00	11.91
11476006502▲	6	152.40	7.50	190.50	4	150	1.03	36.00	914.40	11.40	16.97
11476007502▲	8	203.20	9.50	241.30	4	150	1.03	48.00	1219.20	16.00	23.81
11476010502▲	10	254.00	11.50	292.10	4	150	1.03	60.00	1524.00	19.80	29.47
11476012502▲	12	304.80	13.50	342.90	4	150	1.03	72.00	1828.80	24.20	36.02

▲ = Make To Order (MTO)

TYPE 103 EXHAUST – Black Cover

Type 103 Exhaust hose is recommended for **full vacuum** and low pressure discharge service for exhausting toxic and corrosive fumes from working areas. Type 103 Exhaust hose is **not** designed to carry abrasives. This hose features a corrugated construction which makes the hose very flexible. Straight or enlarged ends are available depending on the application. The wrapped construction with two to four plies of medium weight, loosely woven fabric, along with a steel wire helix allows Type 103 Exhaust hose to resist crushing, kinking or collapsing. This hose comes with the standard 3" long straight blank ends.



Resistance:	
Branding:	Thermoid HBD Industries Type 103 Exhaust Made In USA

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR/NR - 3/64" thick
Cover: SBR/EPDM - corrugated
Reinforcement: Wrapped construction with two to four plies with a helical wire
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. lengths maximum
 Hand built - \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11474020502▲	2	50.80	2.50	63.50	2	25	0.17	12.00	304.80	0.90	1.34
11474025502▲	2-1/2	63.50	3.00	76.20	2	25	0.17	15.00	381.00	1.20	1.79
11474030502▲	3	76.20	3.50	88.90	2	25	0.17	18.00	457.20	1.40	2.08
11474035502▲	3-1/2	88.90	4.00	101.60	2	25	0.17	21.00	533.40	1.80	2.68
11474040502▲	4	101.60	4.50	114.30	2	25	0.17	24.00	609.60	2.00	2.98
11474050502▲	5	127.00	5.75	146.05	3	25	0.17	30.00	762.00	2.80	4.17
11474060502▲	6	152.40	6.75	171.45	3	25	0.17	36.00	914.40	3.30	4.91
11474080502▲	8	203.20	8.75	222.25	3	25	0.17	48.00	1219.20	4.90	7.29
11474100502▲	10	254.00	10.94	277.81	4	25	0.17	60.00	1524.00	7.00	10.42
11474120502▲	12	304.80	12.94	328.61	4	25	0.17	72.00	1828.80	8.70	12.95
11474140502▲	14	355.60	14.94	379.41	4	25	0.17	84.00	2133.60	10.10	15.03
11474160502▲	16	406.40	16.94	430.21	4	25	0.17	96.00	2438.40	11.50	17.11

▲ = Make To Order (MTO)

TYPE 105 COLLECTOR – Black Cover

Type 105 Collector hose has been designed for applications that require **full vacuum** and low pressure discharge service to conduct dust and abrasive materials suspended in the air. This hose also handles dust collectors, metal machining tools, graphite and marble chipping tools. Type 105 will handle some grains if not too abrasive. Suitable for street cleaning machine. Straight, enlarged or Flexseal™ ends are available. This hose features a wrapped construction with either two or four plies of medium weight, loosely woven fabric with a helical steel wire. This allows the hose to resist crushing, kinking or collapsing.



- Cover Color:** Black
- Oil Resistance:** Limited
- Construction:**
 - Tube:** SBR/NR - 1/8" thick
 - Cover:** SBR/NR - corrugated
 - Reinforcement:** Wrapped construction with two to four plies with a helical wire
- Temperature Range:** -40°F to +160°F
-40°C to +71°C
- Packaging:** 50 ft. lengths maximum
Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11474660502▲	2	50.80	2.75	69.85	2	25	0.17	12.00	304.80	1.20	1.79
11474661502▲	2-1/2	63.50	3.25	82.55	2	25	0.17	15.00	381.00	1.50	2.23
11474662502▲	3	76.20	3.75	95.25	2	25	0.17	18.00	457.20	1.80	2.68
11474657502▲	3-1/2	88.90	4.25	107.95	2	25	0.17	21.00	533.40	2.00	2.98
11474664502▲	4	101.60	4.75	120.65	2	25	0.17	24.00	609.60	2.40	3.57
11474665502▲	5	127.00	5.88	149.23	3	25	0.17	30.00	762.00	3.30	4.91
11474666502▲	6	152.40	6.88	174.63	3	25	0.17	36.00	914.40	4.00	5.95
11474668502▲	8	203.20	8.88	225.43	3	25	0.17	48.00	1219.20	5.80	8.63
11474670502▲	10	254.00	11.13	282.58	4	25	0.17	60.00	1524.00	8.10	12.05
11474672502▲	12	304.80	13.13	333.38	4	25	0.17	72.00	1828.80	10.00	14.88
11474674502▲	14	355.60	15.13	384.18	4	25	0.17	84.00	2133.60	11.60	17.26
11474676502▲	16	406.40	17.18	434.98	4	25	0.17	96.00	2438.40	13.20	19.65

▲ = Make To Order (MTO)

CONVERTAPIPE® – Black Cover

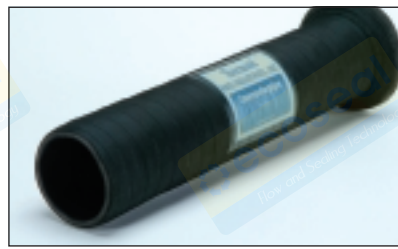
Convertapipe is a flexible rubber hose used for the process piping in suction or discharge service. This hose is frequently used for handling ore in water suspension, dry or water suspended grain, chemicals, metal shavings, wood particles, fish, shells and some sand and gravel. Convertapipe is rated at **full vacuum**. The black SBR/EPDM cover is resistant to snagging, abrasion and weather aging. The reinforcement of a steel wire helix and multiple plies of square woven fabric resists kinking, crushing and collapsing. The exclusive SBR/NR compound has excellent abrasion resistance. Convertapipe is available in a variety of tube gauges, compounds and end types. Please contact Salisbury for more information.

Tube compounds available:

SBR	CSM	SBR/NR blend
NR	EPDM	Additional compounds available
CR	IIR	

Tube gauges available:

1/8"	3/8"	3/4"
3/16"	1/2"	1"
1/4"		



Resistance:



Branding:

Thermoid HBD Industries
Convertapipe WP
Made In USA

Cover Color:	Black
Oil Resistance:	Limited
Construction:	
Tube:	SBR/NR
Cover:	SBR/EPDM
Cover Thickness:	25 lb. WP and 50 lb. WP - 3/64" 75 lb. through 250 lb. - 1/16" For other thicknesses, contact Salisbury for details
Reinforcement:	Square woven fabric plies with helical wire(s) embedded in a cushion of rubber
Temperature Range:	-40°F to +160°F -40°C to +71°C
Packaging:	Make to Order (MTO), minimum order \$250.00 Contact Salisbury for details
Type Ends:	
Straight	Flexlock™ Built-in nipple
Enlarged	Flexseal™ Soft Cuffs

1/4" Tube	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Fits Over Pipe I.D. (inches) (mm)	Type Ends	Working Pressure (psi) (Mpa)	Weight (lb/ft) (Kg/m)
	1 25.40	1.94 49.21		1 2	25 0.17	1.20 1.79
	1-1/2 38.10	2.44 61.91		1 2 3	25 0.17	1.70 2.53
	2 50.80	3.00 76.20		1 2 3 4 5	25 0.17	2.70 4.02
	2-3/8 60.33	3.38 85.73	2 50.80	1	25 0.17	2.70 4.02
	2-1/2 63.50	3.50 88.90		1 2 3 4 5	25 0.17	2.80 4.17
	2-7/8 73.03	3.88 98.43	2-1/2 63.50	1	25 0.17	3.20 4.76
	3 76.20	4.06 103.19		1 2 3 4 5	25 0.17	3.70 5.51
	3-1/2 88.90	4.56 115.89	3 76.20	1 2 3 4 5	25 0.17	4.10 6.10
	4 101.60	5.06 128.59		1 2 3 4 5	25 0.17	5.00 7.44
	4-1/2 114.30	5.56 141.29	4 101.60	1	25 0.17	5.50 8.18
	5 127.00	6.25 158.75		1 2 3 4 5	25 0.17	6.10 9.08
	6 152.40	7.31 185.74		1 2 3 4 5	25 0.17	8.10 12.05
	6-5/8 168.28	7.94 201.61	6 152.40	1	25 0.17	8.60 12.80
	8 203.20	9.44 239.71		1 2 3 4 5	25 0.17	10.80 16.07
	8-5/8 219.08	10.06 255.59	8 203.20	1	25 0.17	11.80 17.56
	10 254.00	11.50 292.10		1 2 3 4 5	25 0.17	14.60 21.72
	10-3/4 273.05	12.25 311.15	10 254.00	1	25 0.17	16.90 25.15
	12 304.80	13.56 344.49		1 2 3 4 5	25 0.17	18.20 27.08
	12-3/4 323.85	14.31 363.54	12 304.80	1	25 0.17	21.00 31.25
	14 355.60	15.81 401.64	14" OD 355.60	1 3 4 5	25 0.17	25.10 37.35
	16 406.40	17.81 458.79	16" OD 406.40	1 3 4 5	25 0.17	31.80 47.31

1/4" Tube	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Fits Over Pipe I.D. (inches) (mm)	Type Ends	Working Pressure (psi) (Mpa)	Weight (lb/ft) (Kg/m)
	1 25.40	1.94 49.21		1 2	50 0.35	1.20 1.79
	1-1/2 38.10	2.44 61.91		1 2 3	50 0.35	1.70 2.53
	2 50.80	3.00 76.20		1 2 3 4 5	50 0.35	2.50 3.72
	2-3/8 60.33	3.38 85.73	2 50.80	1	50 0.35	2.80 4.17
	2-1/2 63.50	3.50 88.90		1 2 3 4 5	50 0.35	3.00 4.46
	2-7/8 73.03	3.88 98.43	2-1/2 63.50	1	50 0.35	3.50 5.21
	3 76.20	4.06 103.19		1 2 3 4 5	50 0.35	3.70 5.51
	3-1/2 88.90	4.56 115.89	3 76.20	1 2 3 4 5	50 0.35	4.00 5.95
	4 101.60	5.06 128.59		1 2 3 4 5	50 0.35	4.90 7.29
	4-1/2 114.30	5.56 141.29	4 101.60	1	50 0.35	5.50 8.18
	5 127.00	6.25 158.75		1 2 3 4 5	50 0.35	6.30 9.37
	6 152.40	7.31 185.74		1 2 3 4 5	50 0.35	8.10 12.05
	6-5/8 168.28	8.13 206.38	6 152.40	1	50 0.35	8.90 13.24
	8 203.20	9.44 239.71		1 2 3 4 5	50 0.35	11.20 16.66
	8-5/8 219.08	10.06 255.59	8 203.20	1	50 0.35	13.10 19.49
	10 254.00	11.50 292.10		1 2 3 4 5	50 0.35	15.70 23.36
	10-3/4 273.05	12.31 312.74	10 254.00	1	50 0.35	17.00 25.29
	12 304.80	13.63 346.08		1 2 3 4 5	50 0.35	19.20 28.57
	12-3/4 323.85	14.38 365.13	12 304.80	1	50 0.35	19.80 29.46
	14 355.60	15.81 401.64	14" OD 355.60	1 3 4 5	50 0.35	25.10 37.35
	16 406.40	17.81 452.44	16" OD 406.40	1 3 4 5	50 0.35	31.90 47.46

MATERIAL HANDLING

CONVERTAPIPE® – Black Cover (Continued)

1/4" Tube	Nominal I.D.		Nominal O.D.		Fits Over Pipe I.D.		Type Ends	Working Pressure		Weight	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(lb/ft)	(Kg/m)
	1	25.40	1.94	49.21			1 2 4	75	0.52	1.20	1.79
	1-1/2	38.10	2.44	61.91			1 2 3	75	0.52	1.70	2.53
	2	50.80	3.06	77.79			1 2 3 4 5	75	0.52	2.70	4.02
	2-3/8	60.33	3.44	87.31	2	50.80	1	75	0.52	3.00	4.46
	2-1/2	63.50	3.56	90.49			1 2 3 4 5	75	0.52	3.20	4.76
	2-7/8	73.03	3.94	100.01	2-1/2	63.50	1	75	0.52	3.50	5.21
	3	76.20	4.13	104.78			1 2 3 4 5	75	0.52	3.70	5.51
	3-1/2	88.90	4.63	117.48	3	76.20	1 2 3 4 5	75	0.52	4.10	6.10
	4	101.60	5.19	131.76			1 2 3 4 5	75	0.52	5.30	7.89
	4-1/2	114.30	5.69	144.46	4	101.60	1	75	0.52	5.80	8.63
	5	127.00	6.25	158.75			1 2 3 4 5	75	0.52	6.40	9.52
	6	152.40	7.38	187.33			1 2 3 4 5	75	0.52	8.40	12.50
	6-5/8	168.28	8.13	206.38	6	152.40	1	75	0.52	9.40	13.99
	8	203.20	9.44	239.71			1 2 3 4 5	75	0.52	11.90	17.71
	8-5/8	219.08	10.06	255.59	8	203.20	1	75	0.52	13.80	20.53
	10	254.00	11.56	293.69			1 2 3 4 5	75	0.52	16.40	24.40
	10-3/4	273.05	12.31	312.74	10	254.00	1	75	0.52	18.10	26.93
	12	304.80	13.75	349.25			1 2 3 5	75	0.52	23.80	35.41
	12-3/4	323.85	14.50	368.30	12	304.80	1	75	0.52	25.70	38.24
	14	355.60	16.00	406.40	14" OD	355.60	1 3 5	75	0.52	30.90	45.98
	16	406.40	18.06	458.79	16" OD	406.40	1 3 5	75	0.52	42.40	63.09

1/4" Tube	Nominal I.D.		Nominal O.D.		Fits Over Pipe I.D.		Type Ends	Working Pressure		Weight	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(lb/ft)	(Kg/m)
	1	25.40	1.94	49.21			1 2	100	0.69	1.20	1.79
	1-1/2	38.10	2.44	61.91			1 2	100	0.69	1.60	2.38
	2	50.80	3.06	77.79			1 2 3 4 5	100	0.69	2.70	4.02
	2-3/8	60.33	3.44	87.31			1	100	0.69	2.80	4.17
	2-1/2	63.50	3.56	90.49			1 2 3 4 5	100	0.69	3.10	4.61
	2-7/8	73.03	3.94	100.01	2-1/2	63.50	1	100	0.69	3.30	4.91
	3	76.20	4.19	106.36			1 2 3 4 5	100	0.69	3.70	5.51
	3-1/2	88.90	4.69	119.06	3	76.20	1 2 3 4 5	100	0.69	4.10	6.10
	4	101.60	5.19	131.76			1 2 3 4 5	100	0.69	5.20	7.74
	4-1/2	114.30	5.69	144.46	4	101.60	1	100	0.69	5.80	8.63
	5	127.00	6.31	160.34			1 2 3 4 5	100	0.69	6.40	9.52
	6	152.40	7.38	187.33			1 2 3 4 5	100	0.69	8.70	12.94
	6-5/8	168.28	8.13	206.38	6	152.40	1	100	0.69	9.50	14.13
	8	203.20	9.56	242.89			1 2 3 4 5	100	0.69	12.50	18.60
	8-5/8	219.08	10.19	258.76	8	203.20	1	100	0.69	13.90	20.68
	10	254.00	11.69	296.86			1 2 3 4 5	100	0.69	17.50	26.04
	10-3/4	273.05	12.44	315.91	10	254.00	1	100	0.69	18.70	27.82
	12	304.80	13.88	352.43			1 2 3 5	100	0.69	25.30	37.64
	12-3/4	323.85	14.63	371.48	12	304.80	1	100	0.69	25.80	38.39
	14	355.60	16.13	409.58	14" OD	355.60	1 5	100	0.69	31.10	46.27
	16	406.40	18.31	465.14	16" OD	406.40	1 5	100	0.69	42.50	63.24

1/4" Tube	Nominal I.D.		Nominal O.D.		Fits Over Pipe I.D.		Type Ends	Working Pressure		Weight	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(lb/ft)	(Kg/m)
	1-1/2	38.10	2.56	65.09			1 2	150	1.03	2.00	2.98
	2	50.80	3.06	77.79			1 2 3 5	150	1.03	2.60	3.87
	2-3/8	60.33	3.44	87.31	2		1	150	1.03	3.00	4.46
	2-1/2	63.50	3.56	90.49			1 2 3 5	150	1.03	3.10	4.61
	2-7/8	73.03	3.94	100.01	2-1/2	63.50	1	150	1.03	3.50	5.21
	3	76.20	4.25	107.95			1 2 3 5	150	1.03	3.60	5.36
	3-1/2	88.90	4.75	120.65	3	76.20	1 2 3 5	150	1.03	4.10	6.10
	4	101.60	5.31	134.94			1 2 3 5	150	1.03	5.80	8.63
	4-1/2	114.30	5.81	147.64	4	101.60	1	150	1.03	6.60	9.82
	5	127.00	6.44	163.51			1 2 3 5	150	1.03	7.10	10.56
	6	152.40	7.56	192.09			1 2 3 5	150	1.03	9.50	14.13
	6-5/8	168.28	8.19	207.96	6	152.40	1	150	1.03	10.50	15.62
	8	203.20	9.81	249.24			1 2 3 5	150	1.03	14.80	22.02
	8-5/8	219.08	10.44	265.11	8	203.20	1	150	1.03	16.30	24.25
	10	254.00	12.06	306.39			1 2 3 5	150	1.03	20.00	29.76
	10-3/4	273.05	12.81	325.44	10	254.00	1	150	1.03	22.10	32.88
	12	304.80	14.31	363.54			1 5	150	1.03	28.90	43.00
	12-3/4	323.85	15.06	382.59	12	304.80	1	150	1.03	30.40	45.23
	14	355.60	16.56	420.69	14" OD	355.60	1 5	150	1.03	36.20	53.86

1/4" Tube	Nominal I.D.		Nominal O.D.		Fits Over Pipe I.D.		Type Ends	Working Pressure		Weight	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(lb/ft)	(Kg/m)
	2	50.80					5	250	1.72	12.00	17.85
	2-1/2	63.50					5	250	1.72	21.80	32.44
	3	76.20					5	250	1.72	27.20	40.47
	4	101.60					5	250	1.72	32.90	48.95
	5	127.00					5	250	1.72	39.70	59.07

MATERIAL HANDLING

FLEXLOCK™ ENDS (Full Face Flanges)

Flexlock Ends applications are the same as the Flexseal™ Ends. This Thermoid patented method of joining hose produces a flexible, rubber-to-rubber seal of great strength. Rubber facing eliminates the need for a gasket. It also provides a rubber seal, thus eliminating any metal contact with the contents of the hose. Flexlock Ends are a rubber flange, reinforced with heavy hose fabric and forming a continuation of the hose tube, backed by a solid steel ring with either 150 lb. or 300 lb. drilling. Flanges cannot be rotated to align bolt holes.



Resistance:
Varies
Branding:
None

Cover Color: N/A
Oil Resistance: Varies, depending on polymer used in compound
Construction:
Tube: N/A
Cover: N/A
Reinforcement: N/A
Temperature Range: Varies, depending on the polymer used in compound
Packaging: Hand built – \$250.00 minimum order per size

Nominal I.D. (inches) (mm)		Working Pressure (psi) (Mpa)	
1-1/2" to 10"	38.1 to 254	150	1.03
12	304.80	125	0.86
14	355.60	90	0.62
16	406.40	90	0.62
18	457.20	75	0.52
20	508.00	75	0.52

FLEXLOCK™ CONNECTORS

Flexlock Connectors are stronger than the Flexseal™ connectors. Flexlock is designed for working pressures from 100 to 150 psi. The natural rubber tube is abrasion and acid resistant. No metal touches the material being carried. Flexlock can be ordered with or without wire reinforcement. Flanged ends are drilled to bolt to companion standard flat-face flanges, providing a tight seal without a gasket. The connector is furnished with a solid steel backup flange, vulcanized to the duck of the rubber flange. Flexlock Connectors are short lengths of hose for joining metal piping thereby putting non-rigid couplings into the lines. Made of thick flexible rubber, they absorb vibrations and prevent the transmission of noise and damaging vibrations through the metal pipes. As a result, pumps, controls, valves and other equipment have longer life.



Resistance:

Branding:
None

Cover Color: N/A
Oil Resistance: Limited
Construction:
Tube: Natural rubber, 3/16" thick
Cover: SBR
Reinforcement: N/A
Temperature Range: -40° to +160°F
 -40°C to +71°C
Packaging: Hand built – \$250.00 minimum order per size

Non-wire Reinforced Wire Reinforced

Nominal I.D. (inches) (mm)		Working Pressure (psi) (Mpa)		Working Pressure (psi) (Mpa)	
1-1/2	38.10	150	1.03	150	1.03
2	50.80	150	1.03	150	1.03
2-1/2	63.50	150	1.03	150	1.03
3	76.20	100	0.69	150	1.03
4	101.60	100	0.69	150	1.03
5	127.00	100	0.69	150	1.03
6	152.40	100	0.69	150	1.03
8	203.20	100	0.69	150	1.03
10	254.00	100	0.69	150	1.03
12	304.80	100	0.69	100	0.69

FLEXSEAL™ ENDS (Beaded Ends)

Flexseal Ends are designed to be used where hose must be joined to another hose or pipe for carrying acids and other chemicals, abrasive materials and fluids that must be kept uncontaminated by metals. Hose I.D. is unrestricted. O.D. end is flared out by building the reinforcement and rubber around an angle steel ring and extending the tube out and over the enlargement. Around each end, behind the flare, a split flange is used with either 150 lb. or 300 lb. drilling. To join two Flexseal Ends, they are aligned without twisting the hose. Bolts are inserted and drawn tight. This compresses the rubber hose ends together making a leakproof seal. No gasket is required. Beaded end.



Resistance:
Varies
Branding:
None

Cover Color: N/A
Oil Resistance: Varies, depending on polymer used in compound
Construction:
Tube: N/A
Cover: N/A
Reinforcement: N/A
Temperature Range: Varies, depending on the polymer used in compound
Packaging: Hand built – \$250.00 minimum order per size

Nominal I.D. (inches)	(mm)	Working Pressure (psi)	(Mpa)
1-1/2" to 10"	38.1 to 254	100	0.69
12	304.80	70	0.48
14	355.60	60	0.41
18	457.20	50	0.34
20	508.00	50	0.34

FLEXSEAL™ CONNECTORS

Flexseal Connectors allow full flow in the pipeline. Designed for working pressures from 50 to 100 psi, depending on the inside diameter of the connector. The natural rubber tube is abrasion and acid resistant. No metal touches the material being carried. Flexseal is available with or without wire reinforcement. The wire-reinforced type has a helix(es) of steel wire buried in the hose to keep it from collapsing under full suction. Used in both suction and discharge services. Non wire-reinforced type only recommended for pinch-valve or discharge service, where material handled cakes in the tube. Split flanges are drilled to bolt companion standard flat-face flanges. They provide a tight seal without a gasket. Since the flanges rotate freely, alignment of the bolts is easy, thus reducing installation time to a minimum. Service involving operating temperatures over 150°F should be reviewed with Salisbury. Flexseal Connectors are short lengths of hose for joining metal piping, thereby putting non-rigid couplings into the lines. Made of thick flexible rubber, they absorb vibrations and prevent the transmission of noise and damaging vibrations through the metal pipes. As a result, pumps, controls, valves and other equipment have longer life.



Resistance:
Branding:
None

Cover Color: N/A
Oil Resistance: Limited
Construction:
Tube: Natural rubber, 3/16" thick
Cover: SBR
Reinforcement: N/A
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: Hand built – \$250.00 minimum order per size

Non-wire Reinforced Wire Reinforced

Nominal I.D. (inches)	(mm)	Working Pressure (psi)	(Mpa)	Working Pressure (psi)	(Mpa)
1-1/2	38.10	100	0.69	100	0.69
2	50.80	100	0.69	100	0.69
2-1/2	63.50	100	0.69	100	0.69
3	76.20	75	0.52	75	0.52
4	101.60	75	0.52	75	0.52
5	127.00	70	0.48	60	0.41
6	152.40	60	0.41	50	0.34
8	203.20	50	0.34	50	0.34
10	254.00	50	0.34	50	0.34
12	304.80	50	0.34	50	0.34

BOTTOM LOADING

Bottom Loading hose is engineered specifically for bottom loading, high pressure tank truck service. Construction of this hose has been stabilized to prevent elongation during service. This hose is rated at **full vacuum**. The black neoprene cover has excellent resistance to abrasion, weathering and ozone. The NBR tube is resistant to oil. Bottom Loading hose has a reinforcement of tire cord with a dual wire helix that allows this to handle a constant working pressure of 250 psi for both the 3" or 4" I.D.



Resistance:
Branding:
None

Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR with an aromatic range up to 55%
Cover: CR
Reinforcement: Tire cord with dual wire helix(es)
Temperature Range: -20°F to +200°F
 -29°C to +93°C
Packaging: 100 ft. maximum. Minimum run of 1200 ft. per size.

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17811503002▲	3	76.20	3.75	95.25	4	250	1.72	12.00	304.80	2.30	3.42
17811504002▲	4	101.60	4.88	123.83	4	250	1.72	18.00	457.20	3.51	5.22

▲ = Make To Order (MTO)

COBRA™ FUEL OIL DELIVERY

Cobra Fuel Oil Delivery hose is designed for the delivery and transfer of fuels, oils, commercial gasoline, diesel, kerosene and related petroleum-based products for home delivery, marine, commercial and industrial service. It features an NBR/PVC cover with multiple spiral polyester reinforcement. This unique spiral construction adds strength and flexibility to the hose while making it easy to handle and kink resistant. The smooth, durable cover resists oil and abrasion and is less resistant to dragging, making it the driver's choice. This hose provides top performance and offers a constant working pressure of 250 psi in all sizes.

Note: A static wire is included on all sizes as a safety precaution



Resistance:
Branding:
Thermoid Cobra I.D. Fuel Oil Hose WP 250 PSI Made In USA Month/Year

Cover Color: Red
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC, RMA Class A
Reinforcement: High tensile spiral polyester cord
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: Reels

Reels (Thermocure)

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22564642662	1	25.40	1.50	38.10	4	250	1.72	7.00	177.80	0.47	0.70
22564802662	1-1/4	31.75	1.78	45.24	4	250	1.72	8.75	222.25	0.59	0.88
22564882662	1-3/8	34.93	1.88	47.63	4	250	1.72	9.25	234.95	0.65	0.97
22564962662	1-1/2	38.10	2.09	53.18	4	250	1.72	10.50	266.70	0.80	1.19

Cut and Coupled Lengths

Product Number		Nominal I.D.		Lengths	
Uncoupled	Coupled	(inches)	(mm)	(feet)	(meters)
22564642102	22564642111	1	25.40	100.00	30.48
22564642122	22564642131	1	25.40	125.00	38.10
22564642152	22564642141	1	25.40	150.00	45.72
22564642172	22564642181	1	25.40	175.00	53.34
22564802102	22564802111	1-1/4	31.75	100.00	30.48
22564802122	22564802131	1-1/4	31.75	125.00	38.10
22564802152	22564802141	1-1/4	31.75	150.00	45.72
22584802162	22564802171	1-1/4	31.75	175.00	53.34
22564882102	22564882111	1-3/8	34.93	100.00	30.48
22564882122	22564882131	1-3/8	34.93	125.00	38.10
22564882152	22564882141	1-3/8	34.93	150.00	45.72
22564882162	22564882201	1-3/8	34.93	175.00	53.34
22564962102	22564962111	1-1/2	38.10	100.00	30.48
22564962122	22564962131	1-1/2	38.10	125.00	38.10
22564962152	22564962141	1-1/2	38.10	150.00	45.72
22564962162	22564962171	1-1/2	38.10	175.00	53.34

FUEL TRANSFER 150

The Transporter® Fuel Transfer 150 hose is designed for gasoline/fuel oil delivery type applications. This hose features a polyester cord, dual lead stainless steel static wire reinforcement that enables this to have a constant working pressure of 150 psi regardless of the size of the hose. The NBR/PVC cover is both oil and abrasion resistant. The NBR tube has excellent resistance to oil.



Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC, RMA Class B
Reinforcement: Polyester cord, dual lead stainless steel static wire
Temperature Range: -20°F to +200°F
 -29°C to +93°C
Packaging: 100 ft. maximum
 Minimum run of 1200 ft. per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17817002002	2	50.80	2.50	63.50	2	150	1.03	14.00	355.60	1.00	1.49
17817003002▲	3	76.20	3.50	88.90	2	150	1.03	24.00	609.60	1.50	2.23
17817004002▲	4	101.60	4.63	117.48	2	150	1.03	32.00	812.80	2.40	3.57

▲ = Make To Order (MTO)

PREMIER FARM TANK

Premier Farm Tank hose is an economical hose designed for use in agricultural, industrial and construction maintenance applications. It features 2-spiral, high-tensile, polyester cord reinforcement with an NBR tube and a NBR/PVC cover. Premier Farm Tank hose is oil and abrasion resistant. This hose was engineered for dispensing gasoline, kerosene and oil from farm or barrel-type pumps where UL approval is not required. Farm Tank hose is supplied with static wire. Static wire hose is designed for use with electric pumps.

Note: Do not use these hoses at a service station or to refuel any aircraft.



Resistance:



Branding:

Thermoid Premier Farm Tank, Size, Made in USA with static wire

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR, RMA Class A
 - Cover:** NBR/PVC RMA Class A
 - Reinforcement:** Spiral high tensile polyester cord
- Temperature Range:** -20°F to +160°F
-29°C to +71°C
- Packaging:** Reels or coupled lengths

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00667212200	3/4	19.05	1.13	28.58	2	60	0.41	4.50	114.30	0.29	0.43
00667216200	1	25.40	1.38	34.93	2	60	0.41	7.00	177.80	0.45	0.67

Coupled Lengths – Male x Male Coupling – With Static Wire

Product Number	Nominal I.D.		Length	
	(inches)	(mm)	(feet)	(meters)
00667212208	3/4	19.05	8.00	2.44
00667212210	3/4	19.05	10.00	3.05
00667212212	3/4	19.05	12.00	3.66
00667212214	3/4	19.05	14.00	4.27
00667216208	1	25.40	8.00	2.44
00667216210	1	25.40	10.00	3.05
00667216212	1	25.40	12.00	3.66
00667216214	1	25.40	14.00	4.27



PUMPFLEX® I – Softwall

Pumpflex I is designed for curb pump self-service stations and highly sensitive electronic fuel pumps. Pumpflex I is the longest lasting automotive refueling hose in use at service stations today. The durable construction of this hose resists deterioration from fuel in the tube. The cover stands up to the ravages of ozone and sunlight. Many hoses fail from cracking behind the nozzle end coupling within two to three years, but Pumpflex I will last longer under normal circumstances. Thermoid continues to use industry standard permanent chrome-plated brass couplings, while others do not. When you need a hose, use the best: Pumpflex I.

Note: Do not use reusable couplings with this product.



Resistance:
Branding:
Thermoid Size Pumpflex I Gasoline Hose UL Listed 97MO Made In USA Month/Year

Cover Color:	Black
Oil Resistance:	High, Medium-High
Construction:	
Tube:	NBR/PVC, RMA Class A
Cover:	Thermalon™, U/L approved, Class B
Reinforcement:	Spiral polyester cord with static wire (Softwall)
Temperature range:	-40°F to +180°F -40°C to +82°C
Packaging:	Reels, coupled lengths Colored covers; contact customer service for minimum run requirements

Reels (Thermocure)

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22462401662▲	5/8	15.88	1.03	26.19	2	200	1.38	3.75	95.25	0.27	0.40
22462481662	3/4	19.05	1.13	28.58	2	200	1.38	4.50	114.30	0.32	0.48
22464641662	1	25.40	1.50	38.10	2	150	1.03	7.00	177.80	0.62	0.92

▲ = Make To Order (MTO)

Coupled Lengths, Male x Male Permanent Fittings

Product Number	Nominal I.D.		Lengths		Weight per Length	
	(inches)	(mm)	(feet)	(meters)	(lbs)	(Kgs)
22462401081▲	5/8	15.88	8.50	2.59	3.67	1.66
22462401231	5/8	15.88	9.00	2.74	3.88	1.76
22462401271▲	5/8	15.88	9.50	2.90	4.09	1.85
22462401101	5/8	15.88	10.00	3.05	4.29	1.95
22462401111▲	5/8	15.88	11.00	3.35	4.70	2.13
22462401121	5/8	15.88	12.00	3.66	4.85	2.20
22462401131▲	5/8	15.88	13.00	3.96	5.10	2.31
22462401141	5/8	15.88	14.00	4.27	5.45	2.47
22462401151▲	5/8	15.88	15.00	4.57	5.80	2.63
22462401161▲	5/8	15.88	16.00	4.88	6.25	2.83
22462401171▲	5/8	15.88	17.00	5.18	6.59	2.99
22462401181▲	5/8	15.88	18.00	5.49	6.98	3.17
22462401201▲	5/8	15.88	20.00	6.10	7.75	3.51
22462481581▲	3/4	19.05	8.50	2.59	4.08	1.85
22462481711	3/4	19.05	9.00	2.74	4.19	1.90
22462481311▲	3/4	19.05	9.50	2.90	4.31	1.95
22462481101	3/4	19.05	10.00	3.05	4.42	2.00
22462481301	3/4	19.05	10.50	3.20	4.65	2.11
22462481111▲	3/4	19.05	11.00	3.35	4.85	2.20
22462481121	3/4	19.05	12.00	3.66	5.01	2.27
22462481131	3/4	19.05	13.00	3.96	5.33	2.42
22462481141	3/4	19.05	14.00	4.27	5.62	2.55
22462481151▲	3/4	19.05	15.00	4.57	5.96	2.70
22462481161▲	3/4	19.05	16.00	4.88	6.33	2.87
22462481171	3/4	19.05	17.00	5.18	6.54	2.97
22462481181▲	3/4	19.05	18.00	5.49	6.90	3.13
22462481191▲	3/4	19.05	19.00	5.79	7.30	3.31
22462481201	3/4	19.05	20.00	6.10	7.45	3.38
22464641101	1	25.40	10.00	3.05	6.20	2.81
22464641111▲	1	25.40	11.00	3.35	6.82	3.09
22464641121	1	25.40	12.00	3.66	7.44	3.37
22464641131▲	1	25.40	13.00	3.96	8.06	3.66
22464641141	1	25.40	14.00	4.27	8.68	3.94
22464641151▲	1	25.40	15.00	4.57	9.30	4.22
22464641161▲	1	25.40	16.00	4.88	9.92	4.50
22464641171	1	25.40	17.00	5.18	10.54	4.78
22464641181▲	1	25.40	18.00	5.49	11.16	5.06
22464641191▲	1	25.40	19.00	5.79	11.78	5.34
22464641201	1	25.40	20.00	6.10	12.40	5.62

▲ = Make To Order (MTO)

PETROLEUM/LPG Petroleum

PUMPFLEX® II – Hardwall

Pumpflex II is designed for curb pump self-service stations and highly sensitive electronic fuel pumps. Pumpflex II is the longest lasting automotive refueling hose in use at service stations today. The durable construction of this hose resists deterioration from fuel in the tube. The cover stands up to the ravages of ozone and sunlight. Many hoses fail from cracking behind the nozzle end coupling within two to three years, but Pumpflex II will last longer under normal circumstances. Thermod continues to use industry standard permanent chrome-plated brass couplings, while others do not. When you need a hose, use the best: Pumpflex II.

Note: Do not use reusable couplings with this product.



Resistance:
Branding:
Thermod Size Pumpflex II Gasoline Hose UL Listed 97MO Made In USA Month/Year

Cover Color:	Black
Oil Resistance:	High, Medium-High
Construction:	
Tube:	NBR/PVC, RMA Class A
Cover:	Thermalon™, U/L approved, Class B
Reinforcement:	1 wire braid (Hardwall)
Temperature Range:	-40°F to +180°F -40°C to +82°C
Packaging:	Reels, Coupled Lengths Colored covers; contact customer service for minimum run requirements

Reels (Thermocure)

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22341401662	5/8	15.88	1.03	26.19	2	200	1.38	3.75	95.25	0.40	0.60
22341481662	3/4	19.05	1.13	28.58	2	200	1.38	4.50	114.30	0.44	0.65
22341641662	1	25.40	1.50	38.10	2	150	1.03	7.00	177.80	0.69	1.03

Coupled Lengths, Male x Male Permanent Fittings

Product Number	Nominal I.D.		Lengths		Weight per Length	
	(inches)	(mm)	(feet)	(meters)	(lbs)	(Kgs)
22341401601▲	5/8	15.88	1.00	0.30	1.78	0.81
22341401621▲	5/8	15.88	8.50	2.59	4.47	2.03
22341401091	5/8	15.88	9.00	2.74	4.59	2.08
22341401231	5/8	15.88	9.50	2.90	4.71	2.14
22341401101	5/8	15.88	10.00	3.05	4.83	2.19
22341401211	5/8	15.88	10.50	3.20	5.07	2.30
22341401111▲	5/8	15.88	11.00	3.35	5.32	2.41
22341401121	5/8	15.88	12.00	3.66	5.54	2.51
22341401131▲	5/8	15.88	13.00	3.96	5.88	2.67
22341401141	5/8	15.88	14.00	4.27	6.23	2.83
22341401151▲	5/8	15.88	15.00	4.57	6.68	3.03
22341401161▲	5/8	15.88	16.00	4.88	7.12	3.23
22341401171▲	5/8	15.88	17.00	5.18	7.25	3.29
22341401181▲	5/8	15.88	18.00	5.49	7.68	3.48
22341401191▲	5/8	15.88	19.00	5.79	8.11	3.68
22341401201▲	5/8	15.88	20.00	6.10	8.55	3.88
22341481091▲	3/4	19.05	1.00	0.30	2.03	0.92
22341481651▲	3/4	19.05	8.50	2.59	5.01	2.27
22341481211	3/4	19.05	9.00	2.74	5.14	2.33
22341481221	3/4	19.05	9.50	2.90	5.27	2.39
22341481101	3/4	19.05	10.00	3.05	5.40	2.45
22341481301▲	3/4	19.05	10.50	3.20	5.65	2.56
22341481111▲	3/4	19.05	11.00	3.35	5.95	2.70
22341481121	3/4	19.05	12.00	3.66	6.21	2.82
22341481131▲	3/4	19.05	13.00	3.96	6.60	2.99
22341481141	3/4	19.05	14.00	4.27	7.02	3.18
22341481151▲	3/4	19.05	15.00	4.57	7.40	3.36
22341481161▲	3/4	19.05	16.00	4.88	7.91	3.59
22341481171	3/4	19.05	17.00	5.18	8.20	3.72
22341481181▲	3/4	19.05	18.00	5.49	8.70	3.95
22341481201▲	3/4	19.05	20.00	6.10	9.67	4.39
22341641101	1	25.40	10.00	3.05	6.34	2.88
22341641301▲	1	25.40	10.50	3.20	6.65	3.02
22341641111▲	1	25.40	11.00	3.35	6.98	3.17
22341641121	1	25.40	12.00	3.66	7.61	3.45
22341641131▲	1	25.40	13.00	3.96	8.25	3.74
22341641141	1	25.40	14.00	4.27	8.65	3.92
22341641151▲	1	25.40	15.00	4.57	9.16	4.15
22341641161▲	1	25.40	16.00	4.88	9.78	4.44
22341641171	1	25.40	17.00	5.18	10.23	4.64
22341641181	1	25.40	18.00	5.49	10.83	4.91
22341641191▲	1	25.40	19.00	5.79	11.40	5.17
22341641201	1	25.40	20.00	6.10	11.80	5.35

▲ = Make To Order (MTO)

PUMPFLEX® II – Jumper

Pumpflex II - Jumper hose primary application is the dual low hose dispenser converted to Stage II vapor recovery external liquid line connection. This hose is used in conjunction with the Pumpflex II hose.

Note: Do not use reusable couplings with this product.



Resistance:



Branding:

Thermoid Size Pumpflex II Gasoline Hose UL Listed 97MO Made In USA Month/Year

- Cover Color:** Black
- Oil Resistance:** High, Medium-High
- Construction:**
 - Tube:** NBR/PVC, RMA Class A
 - Cover:** Thermalon™, U/L approved, RMA Class B
 - Reinforcement:** 1 wire braid (Hardwall)
- Temperature Range:** -40°F to +180°F
-40°C to +82°C
- Packaging:** Bulk

Coupled Lengths, Male x Swivel Permanent Fittings

Product Number	Nominal I.D.		Lengths		Weight per Length	
	(inches)	(mm)	(inches)	(mm)	(lbs)	(Kgs)
22341481271▲	3/4	19.05	14.00	355.60	1.42	0.64
22341481051▲	3/4	19.05	16.00	406.40	1.47	0.67
22341481561▲	3/4	19.05	18.00	457.20	1.56	0.71
22341481061▲	3/4	19.05	21.00	533.40	1.63	0.74
22341481571▲	3/4	19.05	24.00	609.60	1.72	0.78

▲ = Make To Order (MTO)

PUMPFLEX® MARINA – Softwall

Pumpflex Marina hose is color coded green for marina use. This durable hose is designed to handle severe weather conditions, rough deck or dock use. It has a durable four spiral construction and static wire for continuity. This hose can be used for all types of gasoline, oil and other petroleum products. The green cover is oil and weather resistant as well as being UL approved.



Resistance:



Branding:

Thermoid Size Pumpflex Marina Hose UL Listed 97MO Made In USA Month/Year

- Cover Color:** Green
- Oil Resistance:** High, Medium-High
- Construction:**
 - Tube:** NBR/PVC, RMA Class A
 - Cover:** CM, RMA Class B
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -40°F to +180°F
-40°C to +82°C
- Packaging:** Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22463404662▲	5/8	15.88	1.03	26.19	4	200	1.38	3.75	95.25	0.27	0.40
22463484662	3/4	19.05	1.13	28.58	4	200	1.38	4.50	114.30	0.32	0.48
22464644662	1	25.40	1.50	38.10	4	150	1.03	7.00	177.80	0.62	0.92

▲ = Make To Order (MTO)

SUPERLITE® HI-FLO™ CO-AX®

Superlite Hi-Flo Co-Ax hose is for Stage II applications that don't require a liquid recovery system. Hi-Flo's quality construction and advanced design are superior to any product in its category. Special kink resistant compounds and corrugated construction keep the hose lightweight, well-balanced and easy to handle, even in sub-zero weather. Hi-Flo is UL Listed and CARB approved. Hi-Flo delivers up to 10 gpm; the CARB limit for this category.

Coupling: Machined brass – built-in swivel nut



Cover Color: Black
Oil Resistance: High, Medium-High
Construction:
Tube: NBR/PVC
Outer Vapor Hose: Special lightweight corrugated synthetic polymer material
Cover: NBR/PVC
Reinforcement: Braided steel wire
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: Individual carton, 6 per master carton
Retractor Clamp: Use product number 22972150011. Max. tension is 12 lbs.

SUPERLITE® V (Venturi)

Superlite V (Venturi) has been designed inside and out for performance, improved fuel delivery/vapor and liquid recovery; a superior design. Its co-axial system consists of a premium outer hose, a venturi device recovers fluid that collects in the vapor passage, and an extremely flexible inner fuel delivery hose. Superlite V is lightweight, easy to handle, user friendly, is UL Listed and CARB approved and delivers up to 10 gpm, the CARB minimum.

Coupling: Machined brass – built-in swivel nut



Cover Color: Black
Oil Resistance: High, Medium-High
Construction:
Tube: NBR/PVC
Outer Vapor Hose: Special lightweight corrugated synthetic polymer material
Cover: NBR/PVC
Reinforcement: Braided steel wire
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: Individual carton, 6 per master carton
Retractor Clamp: Use product number 22972150011. Max. tension is 12 lbs.

Product Number	Nominal I.D.		Nominal O.D.		Steel Braid Reinforcement	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Inner Hose	5/8	15.88	0.78	19.84	1	200	1.38	4.00	101.60	0.23	0.34
Outer Hose	1-7/32	30.96	1.65	41.91	1	25	0.17	4.00	101.60	0.12	0.18

Superlite Hi-Flo Product Number w/o Venturi	Length	
	(feet)	(meters)
2231444461▲	2.00	0.61
2231444451▲	3.00	0.91
22314444401▲	4.00	1.22
22314444411▲	4.50	1.37
22314444561▲	5.00	1.52
22314444491▲	5.50	1.68
22314444061▲	6.00	1.83
22314444451▲	6.50	1.98
22314444071▲	7.00	2.13
22314444391▲	7.50	2.29
22314444081	8.00	2.44
22314444091	8.50	2.59
22314444101	9.00	2.74
22314444111	9.50	2.90
22314444121	10.00	3.05
22314444131	10.50	3.20
22314444141	11.00	3.35
22314444151	11.50	3.51
22314444161	12.00	3.66
22314444171	12.50	3.81

▲ = Make To Order (MTO)

Superlite Hi-Flo Product Number w/ Venturi	Length	
	(feet)	(meters)
—	2.00	—
—	3.00	—
22313333241▲	4.00	1.22
22313333231▲	4.50	1.37
22313333021▲	5.00	1.52
22313333031▲	5.50	1.68
22313333041▲	6.00	1.83
22313333051▲	6.50	1.98
22313333061▲	7.00	2.13
22313333071	7.50	2.29
22313333081	8.00	2.44
22313333091	8.50	2.59
22313333101	9.00	2.74
22313333111	9.50	2.90
22313333121	10.00	3.05
22313333131	10.50	3.20
22313333141▲	11.00	3.35
22313333151▲	11.50	3.51
22313333161▲	12.00	3.66
22313333171▲	12.50	3.81




▲ = Make To Order (MTO)

SUPERLITE® HI-FLO™ WHIP

Superlite Hi-Flo Whip hose's primary application is the "breakaway" connection from the pump to the primary hose assembly. This hose is used in conjunction with Superlite Hi-Flo Co-Ax assembly.

Note: Do not use reusable couplings with this product.



Resistance:
  
Branding:
Manufacturer's Identification, Product Name UL Listed

Cover Color: Black
Oil Resistance: High, Medium-High
Construction:

Tube: NBR/PVC
Outer Vapor Hose: Special lightweight helical synthetic polymer material
Cover: NBR/PVC
Reinforcement: Braided steel wire

Temperature Range: -40°F to +180°F
 -40°C to +82°C

Packaging: Individual carton, 10 per master carton
Coupling: Machined brass – built-in swivel nut



Superlite Hi-Flo Whip Product Number	Length	
	(inches)	(mm)
22314444041	10.00	254.00
22314444051	12.00	304.80

SUPERLITE® Q CO-AX® & SUPERLITE® QV (Venturi)

The inside working mechanisms of these Q hoses are the same as Superlite V and Superlite® Hi-Flo™ Co-Ax®. The Q difference is on the outside with the helical synthetic polymer material. The covers of both hoses will coordinate with any other hose on your dispenser unit. Both hoses are UL Listed and CARB and EPA approved.

Coupling: Machined brass – built-in swivel nut
 Aluminum ferrule with machined internal grooves viton O-ring.



Resistance:
 
Branding:
Manufacturer's Identification, Product Name UL Listed

Cover Color: Black
Oil Resistance: High, Medium-High
Construction:

Tube: NBR/PVC, RMA Class A
Outer Vapor Hose: Special lightweight helical synthetic polymer material
Cover: NBR/PVC, RMA Class A
Reinforcement: Braided steel wire

Temperature Range: -40°F to +180°F
 -40°C to +82°C

Packaging: Individual carton, 6 per master carton
Retractor Clamp: Use product number 22972150021. Max. tension is 12 lbs.

Product Number	Nominal I.D.		Nominal O.D.		Steel Braid Reinforcement	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Inner Hose	5/8	15.88	0.88	22.23	1	200	1.38	4.00	101.60	0.23	0.34
Outer Hose	1-3/8	34.93	1.63	41.28	1	25	0.17	4.00	101.60	0.12	0.18

Superlite Q Co-Ax Product Number w/o Venturi	Length	
	(feet)	(meters)
22985555041▲	4.00	1.22
22985555051▲	5.00	1.52
22985555061▲	7.00	2.13
22985555071▲	7.50	2.29
22985555081▲	8.00	2.44
22985555091	8.50	2.59
22985555101	9.00	2.74
22985555111	9.50	2.90
22985555121	10.00	3.05
22985555131	10.50	3.20
22985555141	11.00	3.35
22985555151	11.50	3.51
22985555161	12.00	3.66
22985555171	12.50	3.81

Superlite QV Product Number w/ Venturi	Length	
	(feet)	(meters)
22986666041▲	4.00	1.22
22986666051▲	5.00	1.52
22986666061▲	7.00	2.13
22986666071	7.50	2.29
22986666081	8.00	2.44
22986666091	8.50	2.59
22986666101	9.00	2.74
22986666111	9.50	2.90
22986666121	10.00	3.05
22986666131	10.50	3.20
22986666141▲	11.00	3.35
22986666151▲	11.50	3.51
22986666161▲	12.00	3.66
22986666171▲	12.50	3.81

▲ = Make To Order (MTO)

▲ = Make To Order (MTO)


SUPERLITE® Q WHIP

Superlite Q Whip hose's primary application is the "breakaway" connection from the pump to the primary hose assembly. This hose is used in conjunction with Superlite® assembly.

Note: Do not use reusable couplings with this product.

Coupling: Machined brass – built-in swivel nut
 Aluminum ferrule with machined internal grooves viton O-ring.



Resistance:
 
Branding:
Manufacturer's Identification, Product Name UL Listed

- Cover Color:** Black
- Oil Resistance:** High, Medium-High
- Construction:**
 - Tube:** NBR/PVC, RMA Class A
 - Outer Vapor Hose:** Special lightweight helical synthetic polymer material
 - Cover:** NBR/PVC, RMA Class A
 - Reinforcement:** Braided steel wire
- Temperature Range:** -40°F to +180°F
-40°C to +82°C
- Packaging:** Depends on the order

Superlite Q Whip Product Number	Length	
	(inches)	(mm)
2298555011▲	10.00	254.00
2298555021	12.00	304.80

▲ = Make To Order (MTO)



HI-VAC™ CO-AX®

Hi-Vac Co-Ax hose is designed for the new vacuum assist systems using a bootless nozzle. Hi-Vac's inverted design pulls the vapor through the inner hose while fuel is dispensed in the outer hose. Its construction is uncomplicated, well-balanced and exceptionally easy to handle. Hi-Vac is UL Listed, CARB certified and delivers up to 12 gpm.

Coupling: Chrome plated brass metric thread (M34)

Retractor Clamp: Use product number 22973101611.
Max. tension is 10 lbs.



Resistance:
 
Branding:
Manufacturer's Identification, Product Name UL Listed

Cover Color: Black
Oil Resistance: High, Medium-High
Construction:
Inner Hose Tube: NBR/PVC
Outer Hose Tube: NBR/PVC, RMA Class A
Inner Hose Cover: NBR/PVC
Outer Hose Cover: CSM, RMA Class B
Reinforcement: Braided steel wire
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: Depends on the order quantity

HI-VAC™-S CO-AX®

The Hi-Vac-S Co-Ax is a premium, advanced design hose for vacuum-assist Stage II systems using a bootless nozzle. This hose was developed for high volume, intensely competitive markets. Its lightweight and easy handling properties are designed in without sacrificing performance, strength or long service life. Hi-Vac-S is UL Listed, CARB certified and delivers up to 11 gpm.

Coupling: Chrome plated brass metric thread (M34)

Retractor Clamp: Use product number 22973101611.
Max. tension is 10 lbs.



Resistance:
 
Branding:
Manufacturer's Identification, Product Name UL Listed

Cover Color: Black
Oil Resistance: High, Medium-High
Construction:
Inner Hose Tube: NBR/PVC
Outer Hose Tube: NBR/PVC, RMA Class A
Inner Hose Cover: NBR/PVC
Outer Hose Cover: CSM, RMA Class B
Reinforcement: Braided steel wire
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: Individual carton, 6 per master carton

	Nominal I.D.		Nominal O.D.		Steel Braid Reinforcement	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
7/8" I.D. Hi-Vac											
Inner Hose	5/16	7.94	0.52	13.08	1						
Outer Hose	7/8	22.23	1.25	31.75	1	250	1.72	4.00	101.60	0.12	0.18
3/4" I.D. Hi-Vac-S											
Inner Hose	5/16	7.94	0.52	13.08	1						
Outer Hose	4/5	20.32	1.13	28.58	1	250	1.72	4.00	101.60	0.23	0.34

Hi-Vac 7/8" Product Number	Length	
	(feet)	(meters)
22473222041▲	4.00	1.22
22473222061▲	5.00	1.52
22473222091▲	6.00	1.83
22473222251▲	6.50	1.98
22473222221▲	7.00	2.13
22473222231▲	7.50	2.29
22473222071	8.00	2.44
22473222081	8.50	2.59
22473222091	9.00	2.74
22473222101	9.50	2.90
22473222111▲	10.00	3.05
22473222121▲	10.50	3.20
22473222131▲	11.00	3.35
22473222141▲	11.50	3.51
22473222151	12.00	3.66
22473222161▲	12.50	3.81
22473222171▲	13.00	3.96
22473222181▲	13.50	4.11
22473222191▲	14.00	4.27

Hi-Vac-S 3/4" Product Number	Length	
	(feet)	(meters)
22471111041▲	4.00	1.22
22471111061▲	5.00	1.52
22471111291▲	6.00	1.83
22471111251▲	6.50	1.98
22471111221▲	7.00	2.13
22471111231	7.50	2.29
22471111071	8.00	2.44
22471111081	8.50	2.59
22471111091	9.00	2.74
22471111101	9.50	2.90
22471111111▲	10.00	3.05
22471111121▲	10.50	3.20
22471111131▲	11.00	3.35
22471111141▲	11.50	3.51
22471111151▲	12.00	3.66
22471111161▲	12.50	3.81
22471111171▲	13.00	3.96
22471111181▲	13.50	4.11
22471111191▲	14.00	4.27

▲ = Make To Order (MTO)

▲ = Make To Order (MTO)

HI-VAC™ WHIP

Hi-Vac Whip hose's primary application is the "breakaway" connection from the pump to the primary hose assembly. This hose is used in conjunction with the Hi-Vac™ Co-Ax® hose assembly.

Note: Do not use reusable couplings with this product.

Coupling: Chrome plated brass metric thread (M34)



	Resistance:
	
	Branding:
Manufacturer's Identification, Product name UL Listed	

Cover Color: Black
Construction:
Inner Hose Tube: NBR/PVC
Outer Hose Tube: NBR/PVC, RMA Class A
Inner Hose Cover: NBR/PVC
Outer Hose Cover: CSM, RMA Class B
Reinforcement: Braided steel wire
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: Depends on the order quantity

Hi-Vac Whip Product Number	Nominal I.D.		Length	
	(inches)	(mm)	(inches)	(mm)
22471111031	3/4	19.05	10	254.00
22471111011	3/4	19.05	12	304.80
22473222021	7/8	22.23	10	254.00
22473222011	7/8	22.23	12	304.80

TRANSPORTER® EBONITE™ CORRUGATED TANK TRUCK

The Transporter Ebonite Corrugated Tank Truck hose is recommended for hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. This hose features a flat corrugated NBR/PVC cover which is ideal for those applications where flexibility is an issue. The reinforcement of two plies of polyester cord with a dual wire helix enables this hose to be rated at **full vacuum**. Also, this construction allows each size to have a constant working pressure of 150 psi.

	Resistance:
	
	Branding:
Thermoid HBD Industries Inc. Ebonite™ 150 PSI WP Made In USA	

Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC corrugated, RMA Class B
Reinforcement: 2 plies of polyester cord with a dual wire helix(es) between plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17813045002▲	1	25.40	1.53	38.89	2	150	1.03	2.00	50.80	0.60	0.89
17813046002▲	1-1/4	31.75	1.78	45.24	2	150	1.03	2.50	63.50	0.70	1.04
17813047002	1-1/2	38.10	2.06	52.39	2	150	1.03	3.00	76.20	0.90	1.34
17813048002	2	50.80	2.56	65.09	2	150	1.03	4.50	114.30	1.20	1.79
17813050002	3	76.20	3.56	90.49	2	150	1.03	6.00	152.40	1.80	2.68
17813055002	4	101.60	4.66	118.27	2	150	1.03	8.00	203.20	2.70	4.02

▲ = Make To Order (MTO)

TRANSPORTER® EBONITE LT™ CORRUGATED TANK TRUCK

The Transporter Ebonite LT Corrugated Tank Truck hose is designed to handle the applications for suction and discharge for tank truck, tank car and bulk station. This hose is used to convey gasoline, distilled kerosene, diesel and other fuels with maximum aromatic content of 30% to -65°F. This hose features a flat corrugated NBR cover which is ideal for those applications where flexibility and weight are issues. The two plies of polyester cord with a dual wire helix reinforcement allows this hose to be rated at **full vacuum**.



Resistance:



Branding:

Thermoid HBD Industries Inc.
Ebonite™ LT 150 PSI WP
Made In USA

Cover Color: Black
Oil Resistance: Medium-High
Construction:
Tube: NBR (low temperature)
Cover: NBR/PVC corrugated
Reinforcement: 2 plies of polyester cord with a dual wire helix(es) between plies
Temperature Range: -65°F to +180°F
 -54°C to +82°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17813057002	1-1/2	38.10	2.06	52.39	2	150	1.03	3.00	76.20	0.90	1.34
17813058002	2	50.80	2.56	65.09	2	150	1.03	4.00	101.60	1.20	1.79
17813060002	3	76.20	3.56	90.49	2	150	1.03	5.50	139.70	1.80	2.68
17813065002	4	101.60	4.66	118.27	2	150	1.03	8.00	203.20	2.70	4.02

TRANSPORTER® L.W. CORRUGATED TANK TRUCK

The Transporter L.W. Corrugated Tank Truck hose is ideal for the transfer of gasoline or other petroleum-based products where a lightweight, extremely flexible hose is required. This hose is recommended for most hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. The NBR tube is oil resistant. This hose also features a NBR/PVC cover that is both oil and abrasion resistant. This is rated a **full vacuum** hose.



Resistance:



Branding:

Thermoid HBD Industries Inc.
Transporter LW Tank Truck
Made In USA

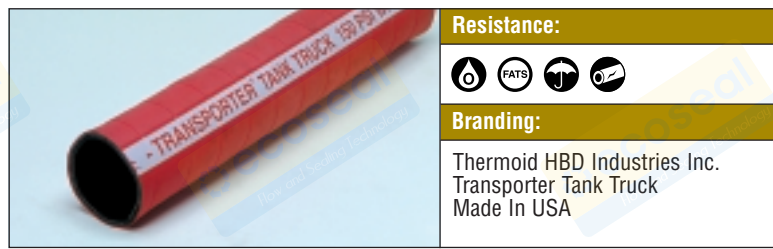
Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC – corrugated. Also available in orange
Reinforcement: 2 plies of polyester cord with a dual wire helix(es) between plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17814491002▲	2	50.80	2.56	65.09	2	100	0.69	5.00	127.00	1.00	1.49
17814493002▲	3	76.20	3.69	93.66	2	100	0.69	7.50	190.50	1.80	2.68
17814494002▲	4	101.60	4.69	119.06	2	100	0.69	9.00	228.60	2.50	3.72

* All sizes available in an orange cover, contact Salisbury for details
 ▲ = Make To Order (MTO)

TRANSPORTER® RED TANK TRUCK

The Transporter Red Tank Truck hose is recommended for use to handle the bulk transfer of petroleum products. This hose will also handle most hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. The NBR tube gives excellent resistance to oil. While the NBR/PVC cover is both oil and weather resistant. Transporter Red Tank Truck hose is rated at **full vacuum**.



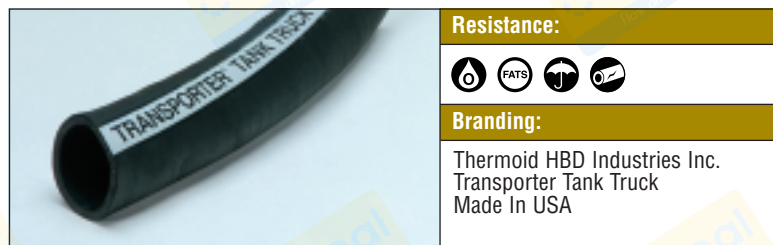
Cover Color: Red
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC, RMA Class B
Reinforcement: Spiral steel wire helix(es) between synthetic textile plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17813015002	1-1/2	38.10	2.00	50.80	2	150	1.03	4.50	114.30	0.80	1.19
17813020002	2	50.80	2.47	62.71	2	150	1.03	6.00	152.40	1.00	1.49
17813025002▲	2-1/2	63.50	3.06	77.79	2	150	1.03	7.50	190.50	1.50	2.23
17813030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.70	2.53
17813040002	4	101.60	4.63	117.48	2	150	1.03	12.00	304.80	2.50	3.72

▲ = Make To Order (MTO)

TRANSPORTER® BLACK TANK TRUCK

The Transporter Black Tank Truck hose is rated at **full vacuum**. Like the red version, this hose is recommended for most hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. The black NBR tube has high oil resistance. The NBR/PVC cover is both oil and abrasion resistant.



Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC, RMA Class B
Reinforcement: Spiral steel wire helix(es) between synthetic textile plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 1" - 4" I.D. – 100 ft. maximum
 6" I.D. – 50 ft.; 100 ft. available upon request

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17811008002	1	25.40	1.50	38.10	2	200	1.38	2.50	63.50	0.50	0.74
17811010002	1-1/4	31.75	1.75	44.45	2	200	1.38	3.00	76.20	0.70	1.04
17811015002	1-1/2	38.10	2.00	50.80	2	150	1.03	4.50	114.30	0.80	1.19
17811020002	2	50.80	2.47	62.71	2	150	1.03	6.00	152.40	1.00	1.49
17811025002	2-1/2	63.50	3.06	77.79	2	150	1.03	7.50	190.50	1.50	2.23
17811030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.70	2.53
17811040002	4	101.60	4.63	117.48	2	150	1.03	12.00	304.80	2.50	3.72
17811060002▲	6	152.40	6.78	172.24	2	100	0.69	30.00	762.00	5.00	7.44

▲ = Make To Order (MTO)

TYPE 924 PETROLEUM TRANSFER

Type 924 Petroleum Transfer hose is perfect for those applications for the bulk transfer of petroleum products. This hose can also be used to handle most hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. The black NBR tube has excellent resistance to oil. The cover compound of NBR/PVC is both oil and abrasion resistant. This hose is rated at **full vacuum**.



Resistance:



Branding:

Thermoid HBD Industries Inc.
Type 924 Petroleum Transfer WP
Made In USA

Cover Color: Black

Oil Resistance: High

Construction:

Tube: NBR, RMA Class A

Cover: NBR/PVC, RMA Class B

Reinforcement: Spiral steel wire helix(es) between synthetic textile plies

Temperature Range: -30°F to +200°F

-34°C to +93°C

Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17812008002	1	25.40	1.50	38.10	2	200	1.38	2.50	63.50	0.50	0.74
17812010002	1-1/4	31.75	1.75	44.45	2	200	1.38	3.00	76.20	0.70	1.04
17812015002	1-1/2	38.10	2.00	50.80	2	150	1.03	4.50	114.30	0.80	1.19
17812020002	2	50.80	2.47	62.71	2	150	1.03	6.00	152.40	1.00	1.49
17812025002	2-1/2	63.50	3.06	77.79	2	150	1.03	7.50	190.50	1.50	2.23
17812030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.70	2.53
17812040002	4	101.60	4.63	117.48	2	150	1.03	12.00	304.80	2.50	3.72
17812060002▲	6	152.40	6.75	171.45	2	100	0.69	30.00	762.00	5.00	7.44

▲ = Make To Order (MTO)

TRANSPORTER® VAPOR RECOVERY

The recommended use for the Transporter Vapor Recovery hose is for the transfer of vapors with maximum aromatic content of 55% back to the tank truck during loading operations. This hose has been rated at **full vacuum**. This hose features an NBR tube, an NBR/PVC cover and includes a reinforcement of two plies of synthetic cord with spiral wire helix between the plies. This combination's benefits are that the hose is lightweight and easy to maneuver.



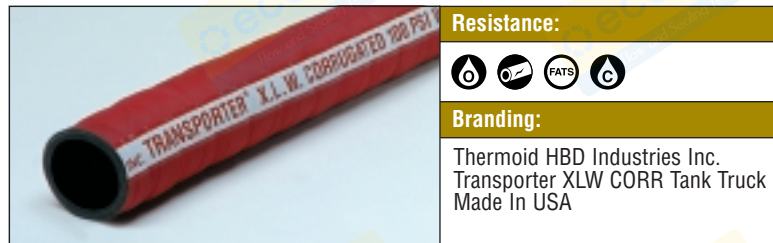
Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC, RMA Class B
Reinforcement: Two plies of synthetic cord with a spiral wire helix(es) between plies
Temperature Range: -30°F to +200°F
 -34°C to +93°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17811130002▲	3	76.20	3.44	87.31	2	100	0.69	9.00	228.60	1.30	1.93
17811140002▲	4	101.60	4.44	112.71	2	80	0.55	12.00	304.80	1.80	2.68

▲ = Make To Order (MTO)

TRANSPORTER® X.L.W. CORRUGATED TANK TRUCK

The Transporter X.L.W. Corrugated Tank Truck hose features the corrugated cover for those bulk transfer applications where an extremely lightweight and flexible hose is required. This hose is designed to handle most hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oils, vegetable oils, hydraulic fluid and a wide range of chemicals. The reinforcement of two polyester cords with a dual wire helix allows this hose to be rated at **full vacuum**. The NBR tube is oil resistant while the neoprene cover is both oil and abrasion resistant.



Cover Color: Red
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: CR corrugated
Reinforcement: 2 plies of polyester cord with a dual wire helix(es) between plies
Temperature Range: -40°F to +200°F
 -40°C to +93°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17810210002	2	50.80	2.44	61.91	2	100	0.69	4.00	101.60	0.88	1.31
17810510002▲	2-1/2	63.50	2.94	74.68	2	100	0.69	5.00	127.00	1.20	1.79
17810310002	3	76.20	3.44	87.31	2	100	0.69	6.00	152.40	1.40	2.08
17810410002	4	101.60	4.50	114.30	2	100	0.69	9.00	228.60	2.00	2.98

▲ = Make To Order (MTO)

LP GAS/PROPANE TANKMASTER

LP Gas/Propane Tankmaster is specifically designed for the transfer of LP Gas and propane between the docks and tankers. LP Gas/Propane is a high strength hose with a design safety factor of 5:1. This hose meets the NFPA-58 and USCG specifications of 46 CFR 38.15-5 for non-refrigerated transfer of compressed LP Gas and Propane to -20°F to +150°F temperatures. This hose features a string vented carcass to avoid blistering due to gas permeation. The neoprene cover resists abrasion, weathering and ozone.



Resistance:	

Branding:
Thermoid HBD Industries Inc.
LP Gas/Propane – 350 WP
Made In USA Date Code
Warning Label

- Cover Color:** Black
- Oil Resistance:** High, Medium-High
- Construction:**
 - Tube:** Nitrile/Hydrin blend
 - Cover:** CR
 - Reinforcement:** Multiple synthetic textile cord plies with helix(es) wire. String vented carcass
- Temperature Range:** -20°F to +150°F
-29°C to +66°C
- Packaging:** 2" I.D. through 6" I.D. – 100 ft. maximum length
8" I.D. or larger, up to 60 ft. long
Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434602002▲	2	50.80	3.03	76.99	4	350	2.41	12.00	304.80	3.10	4.61
11434603002▲	3	76.20	4.16	105.57	4	350	2.41	18.00	457.20	3.70	5.51
11434604002▲	4	101.60	5.53	140.49	6	350	2.41	24.00	609.60	6.50	9.67
11434606002▲	6	152.40	7.63	193.68	6	350	2.41	36.00	914.40	11.70	17.41
11434608002▲	8	203.20	10.20	259.16	8	350	2.41	54.00	1371.60	19.30	28.72

*All sizes have 25 inches of mercury vacuum rating
▲ = Make To Order (MTO)

POLAR-FLEX/CGA TYPE 1 BUTANE-PROPANE – Thermocure

Polar-Flex is a cold weather hose specifically engineered for use in transferring liquefied petroleum gases at peak efficiency even in extreme sub-zero temperatures. Polar-Flex is ideal for moving propane or butane from bulk storage to tank cars or cylinders or from bobtails trucks to residential home storage tanks. Polar-Flex is UL 21 File MH12585 listed and is approved to CGA (Canadian Gas Association) Type 1 requirements. Polar-Flex also meets all hose and hose assembly requirements of the Canadian Gas Association (CSA). Polar-Flex is exceptionally flexible and resists abrasion. It is very easy to handle. It provides a constant working pressure of 350 psi. Polar-Flex has an oil resistant and flame-retardant cover. It is available in a wide range of sizes for your application requirements.



Resistance:	

Branding:
Thermoid Polar-Flex, CGA Type 1
UL Listed LP Gas Hose Issue No.
(Quarter) MH12585 350 PSI Max.
WP Made In USA

- Cover Color:** Black
- Oil Resistance:** High, Medium-High
- Construction:**
 - Tube:** NBR, RMA Class A
 - Cover:** CM, RMA Class B
 - Reinforcement:** 2 and 4 spiral polyester yarn
- Temperature Range:** -50°F to +180°F
-46°C to +82°C
- Packaging:** Reels, *Coupled Lengths
1" I.D. can be ordered with coupled (M x M) Pro-Sur™ brass fittings. The D.O.T. test certificate is included
Hose assemblies tested/approved to 7/1/99 D.O.T reg. CGA approval on 1" I.D. assemblies only

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22071161662▲	1/4	6.35	0.58	14.68	2	350	2.41	1.50	38.10	0.13	0.19
22071241662▲	3/8	9.53	0.69	17.46	2	350	2.41	2.25	57.15	0.16	0.24
22073321662▲	1/2	12.70	0.94	23.81	4	350	2.41	3.00	76.20	0.30	0.45
22073481662	3/4	19.05	1.25	31.75	4	350	2.41	4.50	114.30	0.43	0.64
22073641662	1	25.40	1.50	38.10	4	350	2.41	6.00	152.40	0.58	0.86

▲ = Make To Order (MTO)

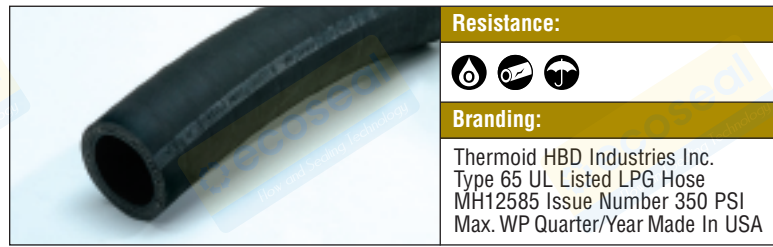
Coupled, Male x Male with Thermoid® PRO SUR™ Brass Fittings

Product Number	Nominal I.D.		Lengths (feet)	Lengths (meters)
	(inches)	(mm)		
22073641101	1	25.40	100.00	30.48
22073641121	1	25.40	125.00	38.10
22073641151	1	25.40	150.00	45.72

*Hose proof tested to 700 psi

TYPE 65 BUTANE-PROPANE

Type 65 Butane-Propane hose is designed for use to transfer LP Gas from bulk storage to tank cars or cylinders. This hose features a black neoprene cover that is oil resistant and also resists snagging, abrasion and weather. This hose is lightweight and flexible. All sizes have a flexible static wire. Meets all UL requirements. The 1-1/2" size meets CAN/CGA-8.1-M86, Type 1. The high tensile cord reinforcement is designed for a minimum burst of 1750 psi. **Note: Do not use reusable couplings with this product. This hose is intentionally pin-pricked for safety reasons. Type 65 Butane-Propane hose must be used in an open, well-ventilated environment. Not recommended for use with natural gas or propylene.**



Resistance:



Branding:

Thermoid HBD Industries Inc.
Type 65 UL Listed LPG Hose
MH12585 Issue Number 350 PSI
Max. WP Quarter/Year Made In USA

Cover Color: Black
Oil Resistance: High, Medium-High
Construction:
Tube: CR
Cover: CR
Reinforcement: High tensile cord
Temperature Range: -40°F to +180°F
-40°C to +82°C
Packaging: 50 ft.

Product Number	Nominal I.D.		Nominal O.D.		Plies**	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17814605*	1-1/4	31.75	1.81	46.04	4	350	2.41	8.00	203.20	0.92	1.37
17814610*	1-1/2	38.10	2.19	55.56	4	350	2.41	9.00	228.60	1.21	1.80
17814615*	2	50.80	2.75	69.85	4	350	2.41	12.00	304.80	1.77	2.63

* To order 50/100 ft., use product number and 002 = 100 ft. and 502 = 50 ft.
** Includes dual stainless steel static wire, spiral applied, in all sizes.

TYPE 75 BUTANE-PROPANE – Thermocure

Type 75 Butane-Propane hose is specifically designed for transferring liquefied propane gas from bulk storage tank cars or cylinders or from bobtails trucks to home storage tanks. The black cover on the Type 75 hose resists oil, snagging and abrasion. This hose has been pin-pricked to permit gas diffusion. The cover is smooth, making it a driver's choice. This hose has multi-spiral, high tensile reinforcement providing maximum strength and flexibility. It is engineered for a minimum burst of 1750 pounds for the ultimate in safety. A variety of Type 75 hose sizes can be ordered in coupled lengths (M x M) complete with Thermoid's PRO-SUR Brass Fittings (D.O.T Test Certificate included). **Note: Do not use reusable couplings with this product. This hose is intentionally pin-pricked for safety reasons. Type 75 Butane-Propane hose must be used in an open, well-ventilated environment.**



Resistance:



Branding:

Thermoid Type 75 UL Listed Gas
Hose Issue Number (Quarter)
MH12585 350 PSI Maximum WP
Made In USA

Cover Color: Black
Oil Resistance: High, Medium-High
Construction:
Tube: NBR, RMA Class A
Cover: CM, RMA Class B
Reinforcement: 2 or 4 spiral polyester yarn
Temperature Range: -40°F to +180°F
-40°C to +82°C
Packaging: Reels, *Coupled lengths
D.O.T. test certificate included with assemblies.
Hose assemblies tested/approved to 7/1/99 D.O.T. regulations.

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22072161662	1/4	6.35	0.58	14.68	2	350	2.41	1.50	38.10	0.12	0.18
22074161662	1/4	6.35	0.63	15.88	4	350	2.41	1.50	38.10	0.15	0.22
22072241662	3/8	9.53	0.69	17.46	2	350	2.41	2.25	57.15	0.16	0.24
22074241662	3/8	9.53	0.75	19.05	4	350	2.41	2.25	57.15	0.20	0.30
22074321662	1/2	12.70	0.94	23.81	4	350	2.41	3.00	76.20	0.29	0.43
22074481662	3/4	19.05	1.25	31.75	4	350	2.41	4.50	114.30	0.41	0.61
22074641662	1	25.40	1.50	38.10	4	350	2.41	7.00	177.80	0.58	0.86

Coupled, Male x Male with Thermoid® PRO SUR™ Brass Fittings

Product Number	Nominal I.D.		Lengths	
	(inches)	(mm)	(feet)	(meters)
22074481101	3/4	19.05	100.00	30.48
22074481121	3/4	19.05	125.00	38.10
22074481151	3/4	19.05	150.00	45.72
22074481171	3/4	19.05	175.00	53.34
22074641101	1	25.40	100.00	30.48
22074641121	1	25.40	125.00	38.10
22074641151	1	25.40	150.00	45.72
22074641171	1	25.40	175.00	53.34



TRANSPORTER® HOT TAR & ASPHALT

Transporter Hot Tar and Asphalt hose has been designed to handle the transfer of hot asphaltic materials between trucks, rail transport cars, storage tanks and disposing units. The specially compounded neoprene tube and cover are exceptionally heat resistant (tube to +350°F) as well as being strong and durable. The spiral synthetic cord and helical wire reinforcement allow this hose to work at 150 psi.



Resistance:	 
Branding:	Thermoid HBD Industries Hot Tar & Asphalt 150 WP 350°F Max. Temp. Made In USA


Cover Color: Black
Oil Resistance: Medium
Construction:
Tube: CR, suitable to +350°F
Cover: CR
Reinforcement: Spiral synthetic cord with spiral helix(es) inserted
Temperature Range: -20°F to +350°F
 -29°C to +177°C
Packaging: 100 ft. maximum
 Minimum order is 1200 ft. per size





Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17771515002▲	1-1/2	38.10	2.13	53.98	2	150	1.03	6.00	152.40	1.30	1.93
17771520002	2	50.80	2.63	66.68	2	150	1.03	8.00	203.20	1.50	2.23
17771525002▲	2-1/2	63.50	3.19	80.96	2	150	1.03	10.00	254.00	2.30	3.42
17771530002	3	76.20	3.75	95.25	2	150	1.03	14.00	355.60	2.80	4.17
17771540002▲	4	101.60	4.75	120.65	2	150	1.03	18.00	457.20	4.00	5.95

▲ = Make To Order (MTO)

ELEPHANT TRUNK

The recommended use for Elephant Trunk hose is for gravity flow transfer of dry bulk materials. This hose features SBR/NR tube and SBR/EPDM cover compound with a two ply nylon cord reinforcement. This combination allows this hose to be lightweight and flexible. Other benefits include resistance to moisture absorption, weathering, aging and sun-checking.



Resistance:	   
Branding:	HBD Industries

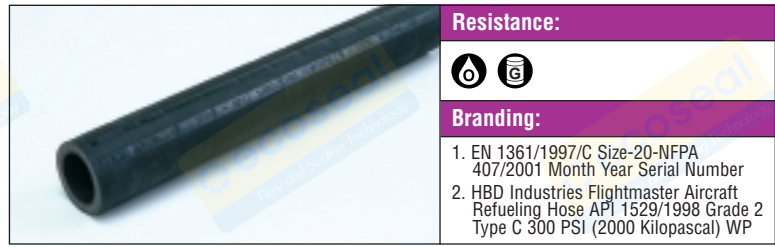
Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR/NR - 1/8" thick
Cover: SBR/EPDM - 1/32" thick
Reinforcement: Nylon cord
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. maximum
 Hand built – \$250.00 minimum order per size
 Straight ends

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11474600502▲	4	101.60	4.44	112.71	2	15	0.10	n/a	n/a	1.60	2.38
11474602502▲	5	127.00	5.44	138.11	2	15	0.10	n/a	n/a	1.90	2.83
11474603502▲	6	152.40	6.44	163.51	2	15	0.10	n/a	n/a	2.30	3.42
11474604502▲	6-5/8	168.28	7.06	179.39	2	15	0.10	n/a	n/a	2.50	3.72
11474605502▲	8	203.20	8.44	214.31	2	15	0.10	n/a	n/a	3.00	4.46
11474606502▲	8-5/8	219.08	9.06	230.19	2	15	0.10	n/a	n/a	3.30	4.91
11474607502▲	10	254.00	10.44	265.11	2	15	0.10	n/a	n/a	3.70	5.51
11474608502▲	10-3/4	273.05	11.19	284.16	2	15	0.10	n/a	n/a	4.00	5.95
11474609502▲	12	304.80	12.44	315.91	2	15	0.10	n/a	n/a	4.50	6.70
11474610502▲	12-3/4	323.85	13.19	331.79	2	15	0.10	n/a	n/a	4.80	7.14
11474612502▲	14	355.60	14.44	366.71	2	15	0.10	n/a	n/a	5.40	8.04
11474614502▲	16	406.40	16.44	417.51	2	15	0.10	n/a	n/a	6.20	9.23
11474618502▲	18	457.20	18.44	468.31	2	15	0.10	n/a	n/a	7.00	10.42
11474619502▲	20	508.00	20.44	519.11	2	15	0.10	n/a	n/a	7.70	10.72
11474620502▲	24	609.60	24.56	623.89	2	15	0.10	n/a	n/a	9.30	13.84
11474621502▲	26	660.40	26.44	671.51	2	15	0.10	n/a	n/a	10.00	14.88

▲ = Make To Order (MTO)
 n/a = Not Applicable

FLIGHTMASTER® AIRCRAFT REFUELING

Flightmaster Aircraft Refueling hose is recommended for fueling or defueling commercial or private aircraft with jet fuel or aviation gasoline. This hose has been engineered to meet the API 1529, 1998 Grade 2, Type C; EN 1361/1997 Type C and NFPA 407, 2001 specifications.



Cover Color: Black
Oil Resistance: High
Construction:
Tube: NBR
Cover: CR, static dissipating
Reinforcement: 2-ply cord for 1" and 1-1/4" I.D.
 4-ply cord for 1-1/2" to 4" I.D.
Temperature Range: -22°F to +131°F
 -30°C to +55°C
Packaging: Make to Order (MTO), 1200 ft. minimum
 Coupled lengths available, maximum is 100 ft.
 Contact Salisbury for details

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17815990002	1	25.40	1.56	39.69	2	300	2.07	4.50	114.30	0.69	1.03
17815992002	1-1/4	31.75	1.81	46.04	2	300	2.07	5.50	139.70	0.81	1.21
17815994002	1-1/2	38.10	2.13	53.98	4	300	2.07	7.00	177.80	1.16	1.73
17815993002	2	50.80	2.63	66.68	4	300	2.07	8.50	215.90	1.37	2.04
17815998002	2-1/2	63.50	3.22	81.76	4	300	2.07	12.00	304.80	1.88	2.80
17815999002	3	76.20	3.75	95.25	4	300	2.07	15.00	381.00	2.12	3.15
17816000002▲	4	101.60	4.75	120.65	4	300	2.07	30.00	762.00	2.86	4.26

▲ = Make To Order (MTO)

* Test pressuring is a 2:1 ratio with working pressure

Non-Reattachable Brass Couplings

Product Number Male	Product Number Female	Hose I.D.
17949040001	17949041001	1
17949046001	17949047001	1-1/4
17949051001	17949052001	1-1/2
17949057001	17949058001	2
17949063001	17949064001	2-1/2
17949071001▲	17949072001	3
17949081001▲	N/A	4

▲ = Make To Order (MTO)

FLIGHTMASTER® JAC RISOR

Flightmaster Jac Risor hose is recommended for the application(s) of a flexible connector used on a risor platform of refueling trucks. The construction of this hose meets NFPA 407, 2001 specifications.



Resistance:	
Branding:	HBD Industries Jac Risor Aircraft Refueling Hose NFPA 407/2001 300 PSI (2000 Kilopascal) WP Quarter Year Serial Number

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR
 - Cover:** CR, static dissipating
 - Reinforcement:** Four synthetic plies with a dual wire helix(es)
- Temperature Range:** -22°F to +131°F
-30°C to +55°C
- Packaging:** Make to Order (MTO), 500 ft. minimum
Coupled lengths available, maximum is 100 ft.

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17816053002▲	3	76.20	3.94	100.01	4	300	2.07	15.00	381.00	3.10	4.61
17816011002▲	4	101.60	4.94	125.41	4	300	2.07	20.00	508.00	4.10	6.10

▲ = Make To Order (MTO)

FURNACE DOOR (Wire Braid)

Furnace Door hose is used as a water cooling hose on open hearth steel mill furnaces. This hose is so light and flexible, only one person is required when changing out this hose. Furnace Door hose features reinforcement braids of high-tensile carbon steel wire with a heat resistant textile layer. This combination provides an insulating layer against severe external heat. The flexible braid of stainless steel used for the cover of this hose is designed to prevent the build-up of metal spattering. This cover also resists the tendency for molten metal to cling to the hose.



Resistance:	
Branding:	Furnace Door WP Made In USA

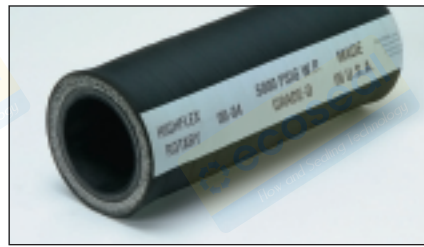
- Cover Color:** Black
- Oil Resistance:** Limited
- Construction:**
 - Tube:** EPDM
 - Cover:** Flexible braid of stainless steel wire
 - Reinforcement:** One braid of high-tensile carbon steel wire
- Temperature Range:** -40°F to +600°F
-40°C to +315°C
With cooling water flowing through the hose at a velocity of 20 feet per second
- Packaging:** 50 ft. maximum, all lengths.
Minimum order is 500 ft. per size

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Braids	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
01164461502▲	1	25.40	1.69	42.86	3	250	1.72	8.00	203.20	0.61	0.91
01164462502	1-1/4	31.75	1.88	47.63	3	250	1.72	10.00	254.00	0.80	1.19
01164463502	1-1/2	38.10	2.13	53.98	3	250	1.72	12.00	304.80	0.95	1.41
01164464502	2	50.80	2.63	66.68	3	250	1.72	16.00	406.40	1.20	1.79

▲ = Make To Order (MTO)

HIGHFLEX GRADE D ROTARY DRILLING

Highflex hose is recommended for the high pressure rotary drilling requirements of API Spec 7K and ISO 6807. This hose is also used in higher pressure applications which exceed the capabilities of Grade C Rotary Drilling hose. It can also be used for the flexible connection between standpipe and swivel for pumping mud at very high pressure in oil drilling and exploration. The Highflex Grade D Rotary Drilling hose features multiple plies of high strength bead wire reinforcement to exceed the minimum burst requirements of 12,500 psig, yet provide for the maximum hose flexibility. The neoprene cover and SBR tube offer excellent resistance to heat, oil, abrasion and weather.



Resistance:



Branding:

HBD Industries, Inc.
Highflex Rotary-(month)-(Year)
5000 psig W.P.-Grade D-Made In USA
+ Warning: Caution Statement

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR, RMA Class A
 - Cover:** CR, Class C
 - Reinforcement:** Multiple plies of bead wire (8 or 10) and synthetic cord fabric
- Temperature Range:** -20°F to +200°F
-29°C to +93°C
- Packaging:** Lengths over 30 ft. shipped on metal reels
Shorter pieces shipped straight – slat packed
- Couplings:** Only uncoupled hose is available at this time

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34844473002▲	2-1/2	63.50	4.25	107.95	8	5000	34.48	48.00	1219.20	11.30	16.82
34844475002▲	3	76.20	4.72	119.86	8	5000	34.48	48.00	1219.20	12.40	18.45
34844478002▲	3-1/2	88.90	5.44	138.11	10	5000	34.48	54.00	1371.60	17.43	25.94

▲ = Make To Order (MTO)

THERMOID MUD PUMP SUCTION

Thermoid Mud Pump Suction hose is designed to be used as the flexible connection between mud pits and slush pumps. This hose features a construction of multiple plies of synthetic cord fabric with a helical steel wire. This allows the hose to be flexible, helps prevent collapse and gives it a **full vacuum rating**. The neoprene cover and tube are resistant to abrasion, sunlight, weather and oil.



Resistance:



Branding:

Thermoid HBD Industries Inc.
Made In USA

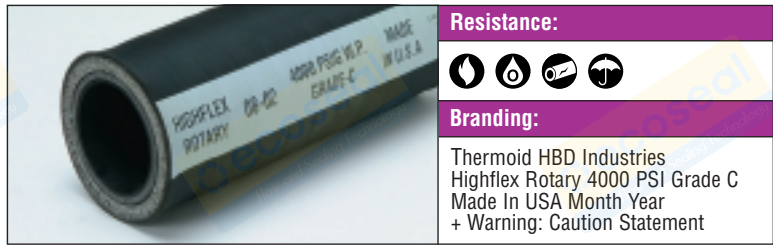
- Cover Color:** Black
- Oil Resistance:** Medium
- Construction:**
 - Tube:** CR
 - Cover:** CR
 - Reinforcement:** Multiple plies of synthetic cord fabric with a helical wire
- Temperature Range:** -30°F to +200°F
-34°C to +93°C
- Packaging:** 50 ft. maximum
Hand built – \$250.00 minimum order per size
- Couplings:** Built-in nipples

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11560006002▲	6	152.40	7.50	190.50	3	60	0.41	36.00	914.40	9.70	14.44
11560008002▲	8	203.20	9.63	244.48	4	60	0.41	48.00	1219.20	15.90	23.66
11560010002▲	10	254.00	11.75	298.45	5	60	0.41	60.00	1524.00	22.00	32.74
11560012002▲	12	304.80	13.88	352.43	6	60	0.41	72.00	1828.80	28.30	42.12

▲ = Make To Order (MTO)

HIGHFLEX GRADE C ROTARY VIBRATOR, DRILLING & DECOKER

Rotary Vibrator, Drilling and Decoker hose is the product you need for the application of the flexible connection between standpipe and swivel for pumping mud at a very high pressure in oil drilling and exploration. This hose is also suitable for refinery decoker service. This hose features high strength spiral steel wire reinforcement which provides very flexible connection capable of withstanding high pumping pressures. The neoprene cover and NBR tube offer excellent resistance to heat, oil, drilling muds, abrasion and weather.



Resistance:

Branding:
Thermoid HBD Industries
Highflex Rotary 4000 PSI Grade C
Made In USA Month Year
+ Warning: Caution Statement

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR, RMA Class A
 - Cover:** CR Grade C with white layline stripe
 - Reinforcement:** Multiple layers of spiralled high tensile carbon steel wire
- Temperature Range:** -20°F to +200°F
-29°C to +93°C
- Packaging:** 100 ft. lengths maximum
Lengths for Rotary and Vibrator hose are measured overall from threaded end to threaded end of the couplings
- Couplings:** Special swaged on type. 3" male API line pipe thread on 2-1/2" size. 4" male API line pipe thread on 3" and 3-1/2" sizes

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34844402002▲	2-1/2	63.50	3.88	98.43	6	4000	27.59	48.00	1219.20	9.00	13.39
34844403002▲	3	76.20	5.00	127.00	8	4000	27.59	48.00	1219.20	13.10	19.50
34844404002▲	3-1/2	88.90	5.56	141.29	8	4000	27.59	54.50	1371.60	17.40	25.90

▲ = Make To Order (MTO)
* Test Pressure is 8,000 psi, a 2:1 ratio to working pressure. Minimum burst is 10,000 psi for each size.

SLIM HOLE ROTARY DRILLING

Slim Hole Rotary Drilling hose is designed specifically for rotary drilling on portable drilling rigs, workover rigs, slim hole and seismograph rigs. This hose features a neoprene cover and an NBR tube which offer excellent resistance to heat, oil, abrasion and weather. Plus this hose has a reinforcement of multiple layers of high tensile steel wire and two fabric plies which give this hose high strength and flexibility. Long 100 ft. lengths help reduce possible connection problems.



Resistance:

Branding:
Thermoid HBD Industries
Slim Hole Rotary 2500 PSI WP
Serial Number Made In USA

- Cover Color:** Black
- Oil Resistance:** High
- Construction:**
 - Tube:** NBR, RMA Class A
 - Cover:** CR with white layline stripe – pinpricked
 - Reinforcement:** Multiple layers of spiralled high tensile steel wire, plus two fabric plies under the wire
- Temperature Range:** -20°F to +200°F
-29°C to +93°C
- Packaging:** 100 ft. lengths maximum
- Couplings:** Swaged on high pressure carbon steel male NPT or API threaded ends or reusable couplings

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34844487002▲	2	50.80	3.13	79.38	4	2500	17.24	18.00	457.20	5.00	7.44
34844488002▲	2-1/2	63.50	3.63	92.08	4	2500	17.24	24.00	609.60	6.00	8.93
34844489002▲	3	76.20	4.19	106.36	4	2500	17.24	30.00	762.00	7.00	10.42

▲ = Make To Order (MTO)
* Test Pressure is 5,000 psi, a 2:1 ratio to working pressure. Minimum burst is 6,250 psi for each size.

BLAST-FLEX™ SAND BLAST

Blast-Flex Sand Blast hose has been engineered to handle the cleaning, cutting or finishing stone, glass and metal surfaces. This hose will conduct sand, steel, shot or other sharp abrasives at high velocity. Blast-Flex features a 1/4" thick, SBR/NR tube that resists abrasion in sandblast service. The static-conducting properties of this hose prevent the build-up of electrical charges. The black SBR/EPDM cover resists abrasions, cuts and snags. The reinforcement of four spiral plies of heavy fabric resists collapsing and kinking when the hose is bent. The larger sizes of Blast-Flex are reinforced with heavier weight fabric for added strength.



Resistance:



Branding:

HBD Industries Sand Blast
Made In USA

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR/NR, 1/4" thick
Cover: SBR/EPDM
Reinforcement: Multiple plies of heavy fabric
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. maximum, all lengths
 Minimum order is 500 ft. per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17776010502	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.70	1.04
17776015502	1	25.40	1.88	47.63	4	150	1.03	n/a	n/a	1.00	1.49
17776025502▲	1-1/4	31.75	2.16	54.77	4	150	1.03	n/a	n/a	1.20	1.79
17776035502	1-1/2	38.10	2.38	60.33	4	150	1.03	n/a	n/a	1.30	1.93
17776040502▲	2	50.80	2.88	73.03	4	100	0.69	n/a	n/a	1.70	2.53
17776045502▲	2-1/2	63.50	3.41	86.52	4	100	0.69	n/a	n/a	2.00	2.98
17776050502	3	76.20	3.91	99.22	4	100	0.69	n/a	n/a	2.40	3.57

▲ = Make To Order (MTO)
 n/a = Not Applicable

WRAPPED SAND BLAST

Wrapped Sand Blast hose has been engineered to handle the cleaning, cutting or finishing stone, glass and metal surfaces. This hose will conduct sand, steel, shot or other sharp abrasives at high velocity. Wrapped Sand Blast features a 1/4" thick, SBR/NR tube that resists abrasion in sandblast service. The static-conducting properties of this hose prevent the build-up of electrical charges. The black SBR/EPDM cover resists abrasions, cuts and snags. The reinforcement of four spiral plies of heavy fabric resists collapsing and kinking when the hose is bent. The larger sizes of Wrapped Sand Blast are reinforced with heavier weight fabric for added strength.



Resistance:



Branding:

Thermoid HBD Industries
Sand Blast Hose WP
Made In USA

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR/NR, 1/4" thick
Cover: SBR/EPDM
Reinforcement: Multiple plies of heavy fabric
Packaging: 50 ft. maximum, all lengths
 Minimum order is 500 ft. per size

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21224407502	1/2	12.70	1.19	30.16	4	150	1.03	n/a	n/a	0.50	0.74
21224400502	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.70	1.04
21224401502	1	25.40	1.88	47.63	4	150	1.03	n/a	n/a	1.00	1.49
21224402502	1-1/4	31.75	2.16	54.77	4	150	1.03	n/a	n/a	1.20	1.79
21224403502▲	1-1/2	38.10	2.38	60.33	4	150	1.03	n/a	n/a	1.30	1.93
21224404502▲	2	50.80	2.88	73.03	4	100	0.69	n/a	n/a	1.70	2.53

▲ = Make To Order (MTO)
 n/a = Not Applicable

BURSTPROOF™ OIL RESISTANT STEAM – Thermocure

Thermoid's Burstproof Oil Resistant Steam hose is designed for saturated steam service to +406°F and super-heated service to +450°F, where the cover may encounter petroleum products. Black and red color covers are available from stock. This hose has an EPDM cover and is reinforced with two braids of carbon steel wire providing flexibility and abrasion resistance. This durable hose provides a constant working pressure of 250 psi and is available in a range of sizes to fit most applications.

⚠ See Steam Hose Warning, pages 8-9.



Resistance:



Branding:

BP Steam, 250# PSI WP
Oil Resistant Made In USA

- Cover Color:** Black or Red
- Oil Resistance:** Medium
- Construction:**
 - Tube:** EPDM, RMA Class C
 - Cover:** EPDM, RMA Class C
 - Reinforcement:** Two braids of carbon steel wire
- Temperature Range:** For saturated steam service to +406°F (+208°C)
Super-heated steam to +450°F (+232°C)
- Packaging:** Reels – 1/2"-1" I.D. or 50 ft. lengths
2-1/2" I.D. – 50 ft. lengths

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Braids	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Black											
22062321662	1/2	12.70	1.06	26.99	2	250	1.72	3.00	76.20	0.38	0.57
22062481662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22062641662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15
01104426502	2-1/2	63.50	3.13	79.38	2	250	1.72	17.00	431.80	2.00	2.98
Red											
22062322662	1/2	12.70	1.06	26.99	2	250	1.72	3.00	76.20	0.38	0.57
22062482662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22062642662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15

BURSTPROOF™ REGULAR STEAM – Thermocure

Thermoid's Burstproof Regular Steam hose is designed for saturated steam service to +406°F and super-heated steam service to +450°F where petroleum products will **not** contact the hose. This hose meets MIL H 28596B, Type 1, Grade A specifications. The black and red cover colors are available from stock. This hose has an EPDM cover and tube. It is reinforced with two braids of carbon steel wire providing flexibility and abrasion resistance. This hose has a constant working pressure of 250 psi and is available in a range of sizes to fit your requirements.

⚠ See Steam Hose Warning, pages 8-9.



Resistance:



Branding:

Thermoid HBD Industries
BP Steam Hose Made In USA

- Cover Color:** Black or Red
- Oil Resistance:** Limited
- Construction:**
 - Tube:** EPDM
 - Cover:** EPDM
 - Reinforcement:** Two braids of carbon steel wire
- Temperature Range:** For saturated steam service to +406°F (+208°C)
Super-heated steam to +450°F (+232°C)
- Packaging:** Reels – 1/2"-1" I.D. or 50 ft. lengths
1-1/4" - 2" I.D. – 50 ft. lengths

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Braids	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Black											
22052321662	1/2	12.70	1.00	25.40	2	250	1.72	3.00	76.20	0.38	0.57
22052481662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22052641662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15
01104413502	1-1/4	31.75	1.88	47.63	2	250	1.72	8.75	222.25	1.10	1.64
01104414502	1-1/2	38.10	2.11	53.58	2	250	1.72	10.50	266.70	1.23	1.83
01104415502	2	50.80	2.66	67.47	2	250	1.72	14.00	355.60	1.62	2.41
Red											
22052322662	1/2	12.70	1.00	25.40	2	250	1.72	3.00	76.20	0.38	0.57
22052482662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22052642662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15

PILE DRIVER STEAM

Pile Driver Steam hose is recommended for those applications where there is saturated steam service to +388°F on driving systems. This hose features an EPDM tube that is specifically compounded to resist permeation and prevent premature failure. The multiple plies of tire cord with plated steel cable reinforcement enable this hose to maintain a working pressure of 200 psi regardless which size hose you are using.

▲ See Steam Hose Warning, pages 8-9.



Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM, also available in CR for oil resistance
Cover: EPDM, also available in CR for oil resistance
Reinforcement: Multiple plies of tire cord and plated steel cable
Temperature Range: Saturated steam service to +388°F (+198°C)
Packaging: 100 ft. maximum
 Minimum order 300 ft.

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854634002▲	2	50.80	3.13	79.38	4	200	1.38	20.00	508.00	4.10	6.10
34854636002▲	2-1/2	63.50	3.38	85.73	4	200	1.38	25.00	635.00	5.40	8.04
34854638002▲	3	76.20	4.50	114.30	4	200	1.38	30.00	762.00	6.40	9.52
34854640002▲	4	101.60	5.63	142.88	4	200	1.38	40.00	1016.00	9.30	13.84
34854642002▲	6	152.40	7.81	198.44	6	200	1.38	60.00	1524.00	18.60	27.68

▲ = Make To Order (MTO)

BLACK HEAVY-DUTY WATER – Coupled

Suitable for water pressure up to 150 psi. Coupled with Male x Female octagonal nut spun brass garden hose couplings with brass ferrules.



Resistance:



Branding:

None

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: 50 ft. lengths – 5 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00512281249▲	5/8	15.88	0.94	23.81	2	150	1.03	3.75	95.25	0.23	0.34
00512281255▲	3/4	19.05	1.06	26.98	2	150	1.03	4.50	114.30	0.27	0.40

▲ = Make To Order (MTO)

BLACK HEAVY-DUTY CONTRACTORS WATER – Coupled

Contractors Water hose has a 150 psi working pressure constant through all sizes. This hose is coupled (Male x Female) with crush resistant octagonal nut rod brass garden hose couplings and brass ferrules. It features an EPDM tube and cover with multi-spiral reinforcement that is heat, ozone and sunlight resistant. Designed for professional grade contractor use, this heavy-duty water hose is engineered to stay flexible even in extreme temperatures. This hose is virtually kink-proof.



Resistance:



Branding:

None

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: 50 ft. lengths – 5 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00512180769	5/8	15.88	0.94	23.81	2	150	1.03	3.75	95.25	0.23	0.34
00512180771	3/4	19.05	1.06	26.98	2	150	1.03	4.50	114.30	0.27	0.40

BLACK MUNICIPAL WATER – Coupled

This economical water hose was designed to provide general water pressure service for municipalities and general construction. It features an EPDM tube and cover that stands up to the effects of heat, abrasion, weathering and ozone. The multi-spiral reinforcement keeps the hose flexible even in extreme temperatures and helps minimize kinks. It can be used by consumers or in construction and this hose will handle city water pressure. It is equipped with Male x Female spun brass fittings and ferrules.



Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: 25 ft. or 50 ft. lengths – 5 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
25 ft.											
00511780744	5/8	15.88	0.88	22.23	2	100	0.69	3.75	95.25	0.18	0.27
00511780745▲	3/4	19.05	1.03	26.19	2	100	0.69	4.50	114.30	0.24	0.36
50 ft.											
00511780769	5/8	15.88	0.88	22.23	2	100	0.69	3.75	95.25	0.18	0.27
00511780770	3/4	19.05	1.03	26.19	2	100	0.69	4.50	114.30	0.24	0.36

▲ = Make To Order (MTO)

GREEN GARDEN – Coupled

Designed for home use, Thermoid's rubber Green Garden hose handles city water pressure and is coupled with male by female spun brass couplings. The EPDM tube and cover resist abrasion, ozone, cracking and weather checking. The multi-spiral polyester reinforcement helps keep it flexible even in extreme temperatures and is virtually kink-proof.



Cover Color: Green
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: 50 ft. lengths – 5 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00549680102	5/8	15.88	0.88	22.23	2	100	0.69	3.75	95.25	0.19	0.28

WASHING MACHINE DRAIN

This hose is specifically designed to withstand the heat and service life requirements needed for washing machine applications both in domestic and commercial use. It features an EPDM tube and cover with multi-spiral polyester construction. This unique spiral reinforcement helps make this hose kink resistant and easy to handle. This hose is very flexible and ideal for curves and bends.



Resistance:



Branding:

None

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
 -40°C to +93°C
Packaging: 50 ft. lengths – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00548610250▲	5/8	15.88	0.91	23.02	2	62	0.43	3.75	95.25	0.19	0.28
00548614250	7/8	22.23	1.22	30.96	2	37	0.25	5.25	133.35	0.35	0.52

▲ = Make To Order (MTO)

WASHING MACHINE INLET

This hose is specifically designed for the long service life and varying water temperature requirements needed in washing machine fill hose applications. It features an EPDM tube and cover. These features combined with high strength characteristics of the reinforcing polyester yarn provide excellent wear and service life. This unique spiral reinforcement helps make this hose resist kinks and is easy to handle. It is very flexible and ideal for curves or bends.



Resistance:



Branding:

None

Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
 -40°C to +93°C
Packaging: Reels

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00548106100▲	3/8	9.53	0.66	16.67	2	200	1.38	2.25	57.15	0.13	0.19

▲ = Make To Order (MTO)

NYLAIR 44 WATER DISCHARGE

The recommended use for Nylair 44 is for water discharge service requiring a light to medium weight, rugged hose. This hose can be used with hot (+180°F) or cold water. The 3/32" thick SBR tube is resistant to water absorption. While the 1/16" thick black SBR/EPDM cover resists abrasions and water absorption.



Resistance:



Branding:

Thermoid HBD Industries
Nylair 44 Water Discharge
Made In USA

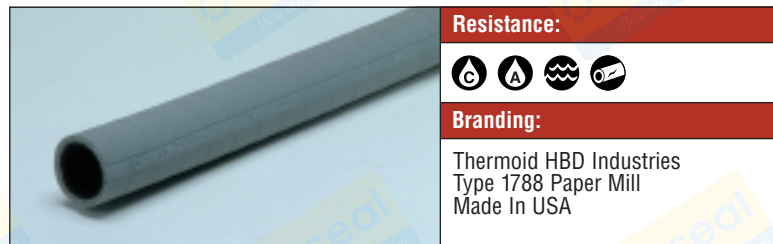
Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: SBR, 3/32" thick
Cover: SBR/EPDM, 1/16" thick
Reinforcement: Multiple plies of cord
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. maximum
 Straight ends only
 1/2" to 3" I.D., minimum order of 500 ft.
 4" I.D. or larger, \$250.00 minimum order

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11524480502▲	1/2	12.70	0.94	23.81	4	200	1.38	n/a	n/a	0.27	0.40
11524482502▲	3/4	19.05	1.81	46.04	4	200	1.38	n/a	n/a	0.30	0.45
11524483502▲	1	25.40	1.44	36.51	4	200	1.38	n/a	n/a	0.44	0.65
11524484502▲	1-1/4	31.75	1.75	44.45	4	200	1.38	n/a	n/a	0.60	0.89
11524485502▲	1-1/2	38.10	2.06	52.39	4	200	1.38	n/a	n/a	0.78	1.16
11524486502▲	2	50.80	2.56	65.09	4	200	1.38	n/a	n/a	1.00	1.49
11524487502▲	2-1/2	63.50	3.06	77.79	4	150	1.03	n/a	n/a	1.38	2.05
11524488502▲	3	76.20	3.56	90.49	4	150	1.03	n/a	n/a	1.58	2.35
11524490502▲	4	101.60	4.63	117.48	4	150	1.03	n/a	n/a	2.10	3.13
11524491502▲	4-1/2	114.30	5.06	128.59	4	125	0.86	n/a	n/a	2.49	3.71
11524492502▲	5	127.00	5.56	141.29	4	125	0.86	n/a	n/a	2.69	4.00
11524494502▲	6	152.40	6.56	166.69	4	100	0.69	n/a	n/a	3.18	4.73
11524495502▲	8	203.20	8.75	222.25	6	100	0.69	n/a	n/a	5.68	8.45
11524497502▲	8	203.20	9.00	228.60	8	150	1.03	n/a	n/a	6.57	9.78
11524498502▲	10	254.00	10.81	274.64	6	75	0.52	n/a	n/a	7.20	10.72
11524499502▲	10	254.00	11.00	279.40	8	100	0.69	n/a	n/a	7.71	11.47

▲ = Make To Order (MTO)
 n/a = Not Applicable

PAPER MILL-TYPE 1788-Gray Cover

Paper Mill Type 1788 hose is ideal for use in paper and pulp mills and other processing plants. This hose is good for hot (up to +200°F) or cold water. The SBR tube of this hose resists water absorption. The gray SBR cover is smooth, thick, soft and resilient. This compound is resistant to the usual chemicals, acids, scuffing and abrasions. Paper Mill Type 1788 hose is available with a lightweight, flexible end which reduces damage when accidentally dropped. Maximum flexibility is provided by the multiple plies of reinforcement.



Resistance:



Branding:

Thermoid HBD Industries
Type 1788 Paper Mill
Made In USA

Cover Color: Gray
Oil Resistance: Limited
Construction:
Tube: SBR
Cover: SBR
Reinforcement: Multiple plies of medium weight fabric
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: 50 ft. lengths

1 End Tapered

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21284434502	3/4	19.05	1.31	33.34	3	150	1.03	n/a	n/a	0.35	0.52
21284435502	1	25.40	1.47	37.31	4	150	1.03	n/a	n/a	0.49	0.73
21284436502	1-1/4	31.75	1.75	44.45	4	150	1.03	n/a	n/a	0.64	0.95
21284437502▲	1-1/2	38.10	2.00	50.80	4	125	0.86	n/a	n/a	0.74	1.10

▲ = Make To Order (MTO)
 n/a = Not Applicable

CASCADE PAPER MILL

Cascade Paper Mill hose is designed for those applications where there is hot water (+200°F) wash-up paper and pulp mills and other processing mills. The SBR tube is resistant to water absorption. The 2-ply or 4-ply reinforcement is a feature that allows this hose work unencumbered at 150 psi, no matter what size hose is being used.



Resistance:



Branding:

Thermoid HBD Industries
Cascade Paper Mill Washdown WP
Made In USA

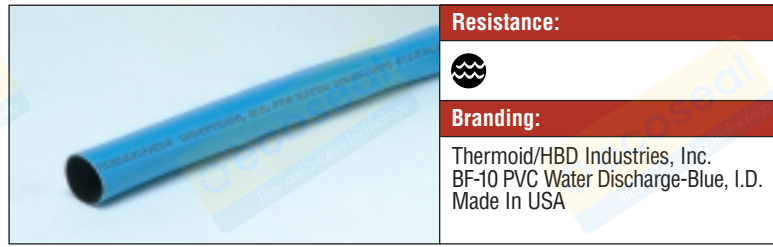
Cover Color: Gray
Oil Resistance: Limited
Construction:
Tube: SBR, 1/8" thick for 2-ply and 3/32" thick for 4-ply
Cover: SBR
Reinforcement: Multiple plies of polyester cord
Temperature Range: -40°F to +160°F
 -40°C to +71°C
Packaging: Tapered end – 50 ft.
 Straight end – 50 ft. to 100 ft.
 Tapered end – one end only
 Other colors available, 1200 ft. minimum

Product Number	Nominal I.D.		Nominal O.D.		Spirals/ Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17828030502	3/4	19.05	1.16	29.36	2	150	1.03	n/a	n/a	0.34	0.51
17828031502	1	25.40	1.41	35.71	2	150	1.03	n/a	n/a	0.43	0.64
17828032502	1-1/4	31.75	1.75	44.45	2	150	1.03	n/a	n/a	0.66	0.98
17828033502	1-1/2	38.10	2.00	50.80	2	150	1.03	n/a	n/a	0.74	1.10
17828034502▲	2	50.80	2.50	63.50	2	150	1.03	n/a	n/a	0.92	1.37
17828035502▲	2-1/2	63.50	3.03	76.96	2	150	1.03	n/a	n/a	1.29	1.92
17828001502	3/4	19.05	1.16	29.36	4	150	1.03	n/a	n/a	0.38	0.57
17828002502	1	25.40	1.41	35.71	4	150	1.03	n/a	n/a	0.56	0.83
17828000502	1-1/4	31.75	1.75	44.45	4	150	1.03	n/a	n/a	0.69	1.03
17828003502▲	1-1/2	38.10	2.00	50.80	4	150	1.03	n/a	n/a	0.80	1.19
17828004502▲	2	50.80	2.50	63.50	4	150	1.03	n/a	n/a	0.96	1.43
17828005502▲	2-1/2	63.50	3.03	76.96	4	150	1.03	n/a	n/a	1.35	2.01

▲ = Make To Order (MTO)
 n/a = Not Applicable

BF-10 PVC WATER DISCHARGE – BLUE

The BF-10 is a lightweight and economical PVC water discharge hose for open end service in mining, construction, agricultural and industrial applications. This PVC construction allows this hose to be easy to handle, won't absorb water or cake with mud.



Resistance:



Branding:

Thermoid/HBD Industries, Inc.
BF-10 PVC Water Discharge-Blue, I.D.
Made In USA

- Cover Color:** Blue
- Oil Resistance:** Medium
- Construction:**
 - Tube:** PVC, co-extruded
 - Cover:** PVC, co-extruded
 - Reinforcement:** Polyester
- Temperature Range:** -5°F to +130°F
-21°C to +54°C
- Packaging:** 300 ft. maximum
- Couplings:** Common long or short shank and quick acting with bands or clamps

Product Number	Nominal I.D.		Nominal Wall Thickness		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19051003002▲	1	25.40	0.06	1.52	n/a	110	0.76	n/a	n/a	0.09	0.13
19051253002	1-1/4	31.75	0.06	1.52	n/a	80	0.55	n/a	n/a	0.12	0.18
19051503002	1-1/2	38.10	0.06	1.52	n/a	70	0.48	n/a	n/a	0.17	0.25
19052003002	2	50.80	0.06	1.52	n/a	65	0.45	n/a	n/a	0.22	0.33
19052503002▲	2-1/2	63.50	0.06	1.52	n/a	55	0.38	n/a	n/a	0.25	0.37
19053003002	3	76.20	0.06	1.52	n/a	55	0.38	n/a	n/a	0.31	0.46
19054003002	4	101.60	0.06	1.52	n/a	50	0.34	n/a	n/a	0.44	0.65
19056003002▲	6	152.40	0.06	1.52	n/a	35	0.24	n/a	n/a	0.73	1.09

▲ = Make To Order (MTO)
n/a = Not Applicable

PVC WATER DISCHARGE STANDARD DUTY BLUE

PVC Water Discharge Standard Duty Blue hose is an economical, standard duty water hose. This hose will not rot or mildew. Also, this hose is resistant to oils and grease and rolls flat for easy storage. It can be used in open end discharge service for water, sewage and mine acid water. This hose features a PVC construction which makes this hose lightweight and easy to handle. It won't absorb water or cake with mud.



Resistance:



Branding:

Thermoid/HBD Industries, Inc.-
Standard PVC, I.D.,
Made In USA

Cover Color:	Blue
Oil Resistance:	Medium
Construction:	
Tube:	PVC
Cover:	PVC
Reinforcement:	2 spiral plies and one longitudinal ply of polyester fiber
Temperature Range:	0°F to +150°F -18°C to +66°C
Packaging:	300 ft. maximum
Couplings:	Shank type, quick acting

Product Number	Nominal I.D.		Nominal Wall Thickness		Plies *	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19021503002	1-1/2	38.10	0.06	1.52	2 S + 1 L	75	0.52	n/a	n/a	0.15	0.22
19022003002	2	50.80	0.06	1.52	2 S + 1 L	75	0.52	n/a	n/a	0.23	0.34
19023003002	3	76.20	0.06	1.52	2 S + 1 L	50	0.34	n/a	n/a	0.37	0.55
19024003002	4	101.60	0.06	1.52	2 S + 1 L	50	0.34	n/a	n/a	0.53	0.79
19026003002▲	6	152.40	0.06	1.52	2 S + 1 L	40	0.28	n/a	n/a	1.10	1.64

* 2 S + 1 L = 2 spiral plies plus one longitudinal ply of polyester fiber.

▲ = Make To Order (MTO)

n/a = Not Applicable

TRANSPORTER® WATER DISCHARGE

Transporter Water Discharge hose is ideal for irrigation and construction applications. This hose is extremely lightweight, flexible and easy to handle. This hose features an EPDM tube and cover which is resistant to water absorption, heat and sunlight. Regardless of the I.D., the synthetic cord reinforcement allows this hose to work at a constant working pressure of a 100 psi.



Resistance:



Branding:

Thermoid HBD Industries
Transporter Water Discharge
Made In USA

Cover Color:	Black
Oil Resistance:	Limited
Construction:	
Tube:	EPDM
Cover:	EPDM
Reinforcement:	Synthetic cord
Temperature Range:	-40°F to +180°F -40°C to +82°C
Packaging:	100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17825015002	1-1/2	38.10	1.72	43.66	2	100	0.69	n/a	n/a	0.30	0.45
17825020002	2	50.80	2.22	56.36	2	100	0.69	n/a	n/a	0.40	0.60
17825030002	3	76.20	3.22	81.76	2	100	0.69	n/a	n/a	0.60	0.89
17825040002	4	101.40	4.22	107.16	2	100	0.69	n/a	n/a	0.90	1.34
17825060002	6	152.40	6.34	161.13	4	100	0.69	n/a	n/a	2.00	2.98

n/a = Not Applicable

WD-150 WATER DISCHARGE

WD-150 is the heavy-duty water discharge hose suitable for construction sites, work boats and mines where abrasion resistance and higher working pressures are required. This hose features a reinforcement of two to four plies of polyester cord, depending on the I.D., that allows this hose to work at a constant working pressure of 150 psi regardless of hose I.D. The EPDM tube and cover offer excellent heat resistance.



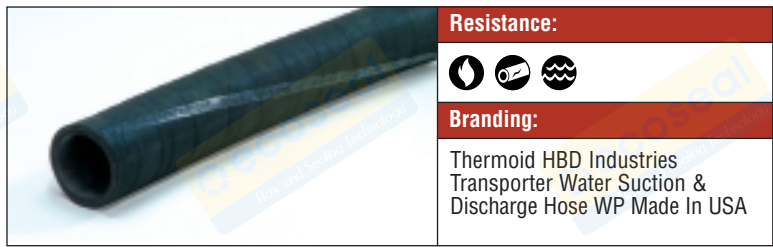
Cover Color: Black
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Heavy plies of polyester cord in sizes 1" to 4" I.D. – 2 plies
 5" and 6" I.D. – 4 plies
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17826010002▲	1	25.40	1.28	32.54	2	150	1.03	n/a	n/a	0.27	0.40
17826012502▲	1-1/4	31.75	1.53	38.89	2	150	1.03	n/a	n/a	0.32	0.48
17826015002▲	1-1/2	38.10	1.78	53.18	2	150	1.03	n/a	n/a	0.38	0.57
17826020002	2	50.80	2.28	57.94	2	150	1.03	n/a	n/a	0.56	0.83
17826025002	2-1/2	63.50	2.80	71.04	2	150	1.03	n/a	n/a	0.70	1.04
17826030002	3	76.20	3.28	83.34	2	150	1.03	n/a	n/a	0.76	1.13
17826040002	4	101.60	4.31	109.54	2	150	1.03	n/a	n/a	1.13	1.68
17826050002▲	5	127.00	5.50	139.70	4	150	1.03	n/a	n/a	2.45	3.65
17826060002	6	152.40	6.50	165.10	4	150	1.03	n/a	n/a	2.77	4.12

▲ = Make To Order (MTO)
 n/a = Not Applicable

TRANSPORTER® WATER SUCTION & DISCHARGE

Transporter Water Suction and Discharge hose is designed for contractors and agricultural applications. This hose features an EPDM tube and cover construction which allows this hose to be smooth, tough, non-porous, heat and abrasion resistant. This construction, plus the reinforcement of a wire inserted helical wire in synthetic cord, makes this hose lightweight, flexible and easy to handle. This hose is rated at **full vacuum**.



Resistance:



Branding:

Thermoid HBD Industries
Transporter Water Suction &
Discharge Hose WP Made In USA

- Cover Color:** Black
- Oil Resistance:** Limited
- Construction:**
 - Tube:** EPDM
 - Cover:** EPDM
 - Reinforcement:** Synthetic cord with spiral wire helix(es) wire inserted
- Temperature Range:** -40°F to +180°F
-40°C to +82°C
- Packaging:** 100 ft. maximum

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17834010002▲	1	25.40	1.44	36.51	2	200	1.38	2.50	63.50	0.50	0.74
17834012502▲	1-1/4	31.75	1.69	42.86	2	200	1.38	3.00	76.20	0.60	0.89
17834015002	1-1/2	38.10	1.94	49.21	2	200	1.38	4.00	101.60	0.70	1.04
17834020002	2	50.80	2.44	61.91	2	150	1.03	6.00	152.40	0.90	1.34
17834025002	2-1/2	63.50	3.00	76.20	2	150	1.03	8.50	215.90	1.30	1.93
17834030002	3	76.20	3.56	90.49	2	150	1.03	11.00	279.40	1.80	2.68
17834040002	4	101.60	4.63	117.48	2	150	1.03	14.00	355.60	2.60	3.87
17830600002	6	152.40	6.67	169.47	2	100	0.69	30.00	762.00	4.10	6.10

▲ = Make To Order (MTO)

PAPER MACHINE SUCTION BOX

Paper Machine Suction Box hose was specifically designed to serve as a connector on paper machines. This hose features a corrugated neoprene tube and cover which is resistant to oil, abrasions, weathering and ozone. Paper Machine Suction Box hose is rated at **full vacuum**.



Resistance:
Branding:
Thermoid HBD Industries

Cover Color: Black
Oil Resistance: Medium
Construction:
Tube: CR, corrugated
Cover: CR, corrugated
Reinforcement: Multiple plies of synthetic fabric with spiral wire helix(es)
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: 15 ft. lengths, maximum
 \$250.00 minimum order
Ends: 2" soft cuff with capped ends

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11484045502▲	4-1/2	114.30	5.31	134.94	2	n/a	n/a	4.50	114.30	3.90	5.80
11484050502▲	5	127.00	5.81	147.64	2	n/a	n/a	5.00	127.00	4.20	6.25
11484060502▲	6	152.40	6.81	173.04	2	n/a	n/a	6.00	152.40	4.90	7.29
11484070502▲	6-5/8	168.28	7.44	188.91	2	n/a	n/a	6.63	168.28	6.10	9.08
11484080502▲	8	203.20	8.81	223.84	2	n/a	n/a	8.00	203.20	6.20	9.23
11484090502▲	8-5/8	219.08	9.44	239.71	2	n/a	n/a	8.63	219.08	6.60	9.82
11484100502▲	10	254.00	10.81	274.64	2	n/a	n/a	10.00	254.00	8.90	13.25
11484108502▲	10-3/4	273.05	11.56	293.69	2	n/a	n/a	10.75	273.05	9.40	13.99
11484120502▲	12	304.80	12.88	327.03	3	n/a	n/a	12.00	304.80	11.00	16.37
11484128502▲	12-3/4	323.85	13.63	346.08	3	n/a	n/a	12.75	323.85	11.30	16.82
11484140502▲	14	355.60	14.94	379.41	3	n/a	n/a	14.00	355.60	14.20	21.13
11484160502▲	16	406.40	16.94	430.21	3	n/a	n/a	16.00	406.40	15.90	23.66
11484180502▲	18	457.20	19.00	482.60	3	n/a	n/a	18.00	457.20	17.70	26.34

▲ = Make To Order (MTO)
 *All sizes are rated at full vacuum

RADIAL FLEX® STANDARD DUTY GREEN

This is a standard duty, multipurpose PVC hose which applications include industrial, chemical, construction, farm and mining. This a **full vacuum** rated hose. Radial Flex Standard Duty Green hose is recommended for use between 0°F to +150°F. Outside these limits, rubber hose is recommended.



Resistance:
Branding:
None

Cover Color: Green
Oil Resistance: Limited
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical PVC rod
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum – 1" to 4" I.D.
 40 ft. maximum – 6" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	70 Degrees F Working Pressure		150 Degrees F Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19121001002	1	25.40	1.13	28.58	n/a	100	0.69	25	0.17	3.00	76.20	0.25	0.37
19121501002	1-1/2	38.10	1.78	45.21	n/a	90	0.62	25	0.17	4.00	101.60	0.39	0.58
19122001002	2	50.80	2.29	58.17	n/a	90	0.62	25	0.17	5.00	127.00	0.57	0.85
19122501002▲	2-1/2	63.50	2.90	73.66	n/a	100	0.69	25	0.17	6.00	152.40	1.00	1.49
19123001002	3	76.20	3.42	86.87	n/a	90	0.62	20	0.14	7.00	177.80	1.16	1.73
19124001002	4	101.60	4.52	114.81	n/a	75	0.52	20	0.14	10.00	254.00	1.82	2.71
19126001002▲	6	152.40	6.70	170.18	n/a	50	0.34	n/a	n/a	16.00	406.40	3.09	4.60

▲ = Make To Order (MTO)
 n/a = Not Applicable

RADIAL FLEX® CONTRACTORS

Radial Flex Contractors hose is recommended for water, light chemicals in mining, construction and forming. This is a **full vacuum** rated hose. This hose is recommended for use between 0°F to +150°F. Outside these limits, rubber hose is recommended.



Resistance:	
Branding:	None

Cover Color: Green
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical PVC rod
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum – 1-1/2" to 4" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	70 Degrees F		150 Degrees F		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		Working Pressure (psi)	(Mpa)	Working Pressure (psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19061501002▲	1-1/2	38.10	1.75	44.45	n/a	90	0.62	25	0.17	5.00	127.00	0.39	0.58
19062001002	2	50.80	2.31	58.74	n/a	90	0.62	25	0.17	7.00	177.80	0.57	0.85
19063001002	3	76.20	3.41	86.52	n/a	75	0.52	25	0.17	10.00	254.00	0.94	1.40
19064001002▲	4	101.60	4.47	113.51	n/a	60	0.41	25	0.17	14.00	355.60	1.48	2.20

▲ = Make To Order (MTO)
 n/a = Not Applicable

RADIAL FLEX® STANDARD DUTY CLEAR

Radial Flex Standard Duty Clear hose is designed for those industrial applications where maximum visibility is needed. The clear PVC wall with the white helix(es) allows detection of blockage or other problems. Like the other Radial Flex hoses, it is recommended that this hose be used in temperatures between 0°F to +150°F. Outside these limits, rubber hose is recommended. This hose is rated at **full vacuum**.



Resistance:	
Branding:	None

Cover Color: Clear
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical PVC rod
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum – 1-1/2" to 4" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	70 Degrees F		150 Degrees F		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		Working Pressure (psi)	(Mpa)	Working Pressure (psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19141501002	1-1/2	38.10	1.80	45.72	n/a	90	0.62	25	0.17	4.00	101.60	0.39	0.58
19142001002	2	50.80	2.34	59.44	n/a	90	0.62	25	0.17	5.00	127.00	0.57	0.85
19142501002▲	2-1/2	63.50	2.91	73.91	n/a	100	0.69	25	0.17	6.00	152.40	1.00	1.49
19143001002	3	76.20	3.46	87.88	n/a	90	0.62	25	0.17	7.00	177.80	1.16	1.73
19144001002	4	101.60	4.50	114.30	n/a	75	0.52	20	0.14	10.00	254.00	1.82	2.71

▲ = Make To Order (MTO)
 n/a = Not Applicable

RADIAL FLEX® STANDARD DUTY CLEAR CORRUGATED

This hose has the same applications as the Radial Flex Standard Duty Clear hose. The corrugated construction with the clear wall and white PVC helix(es) gives this hose added flexibility and a smooth tube for an unrestricted flow. This hose is recommended for use between 0°F to +150°F. Outside these limits, rubber hose is recommended. This hose is rated at **full vacuum**.



Resistance:



Branding:

None

Cover Color: Clear
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical PVC rod
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum – 1-1/2" to 4" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	70 Degrees F		150 Degrees F		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		Working Pressure (psi)	(Mpa)	Working Pressure (psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19171501002▲	1-1/2	38.10	1.73	43.94	n/a	55	0.38	15	0.10	4.00	101.60	0.31	0.46
19172001002▲	2	50.80	2.28	57.91	n/a	50	0.34	15	0.10	5.00	127.00	0.48	0.71
19172501002▲	2-1/2	63.50	2.81	71.37	n/a	45	0.31	12.5	0.09	6.00	152.40	0.67	1.00
19173001002▲	3	76.20	3.30	83.82	n/a	40	0.28	12.5	0.09	7.00	177.60	0.84	1.25
19174001002▲	4	101.60	4.46	113.28	n/a	35	0.24	10	0.07	10.00	254.00	1.63	2.43

▲ = Make To Order (MTO)
 n/a = Not Applicable

RADIAL FLEX® EXTRA HEAVY DUTY GREEN

Radial Flex Extra Heavy Duty Green hose is ideal for most industrial, chemical transfer, construction, farm and mining applications. Good for conveying liquids and slurries. This hose is rated at full vacuum. The PVC construction is extremely tough, abrasion resistant and won't collapse under full vacuum. This hose is recommended for use between 0°F to +150°F. Good for full vacuum within these limits. Outside these limits, rubber hose is recommended. Non-fading green color.



Resistance:



Branding:

None

Cover Color: Green
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical PVC rod
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum – 1-1/2" to 4" I.D.
 40 ft. maximum – 5" to 6" I.D.

Product Number	Nominal I.D.		Nominal O.D.		Plies	70 Degrees F		150 Degrees F		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		Working Pressure (psi)	(Mpa)	Working Pressure (psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19011501002▲	1-1/2	38.10	1.89	48.01	n/a	150	1.03	65	0.45	7.00	177.80	0.54	0.80
19012001002	2	50.80	2.39	60.71	n/a	130	0.90	55	0.38	8.00	203.20	0.81	1.21
19012501002▲	2-1/2	63.50	2.94	74.68	n/a	106	0.73	50	0.34	10.00	254.00	1.13	1.68
19013001002	3	76.20	3.45	87.63	n/a	100	0.69	45	0.31	12.00	304.80	1.35	2.01
19013501002▲	3-1/2	88.90	4.09	103.89	n/a	75	0.52	35	0.24	15.00	381.00	1.75	2.60
19014001002▲	4	101.60	4.60	116.84	n/a	75	0.52	30	0.21	17.00	431.80	2.22	3.30
19015001002▲	5	127.00	5.65	143.51	n/a	75	0.52	20	0.14	24.00	609.60	2.83	4.21
19016001002▲	6	152.40	6.76	171.70	n/a	60	0.41	20	0.14	32.00	812.80	4.23	6.30

* Sizes 1-1/2" I.D. to 4" I.D. 100 ft. per coil, sizes 5" I.D. to 6" I.D. 40 ft. per coil
 ▲ = Make To Order (MTO)
 n/a = Not Applicable

**RADIAL FLEX®
HEAVY DUTY YELLOW**

Radial Flex Heavy Duty Yellow hose is for construction farm and mining applications where the durability and ruggedness of Radial Flex® Green is not required. This hose is designed to handle irrigation and suction applications. This hose is rated at **full vacuum**. All sizes can take full vacuum without collapsing. Radial Flex Yellow hose is non-fading and recommended for use between 0°F to +150°F. This hose good for full vacuum within these limits. Outside these limits, rubber hose is recommended.



Resistance:



Branding:

None

Cover Color: Yellow
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical PVC rod
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum – 1" to 4" I.D.
 40 ft. maximum – 6" I.D.

70 Degrees F 150 Degrees F

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19041001002▲	1	25.40	1.27	32.26	n/a	140	0.96	40	0.28	4.00	101.60	0.28	0.42
19041501002▲	1-1/2	38.10	1.84	46.74	n/a	120	0.83	40	0.28	6.00	152.40	0.47	0.70
19042001002▲	2	50.80	2.37	60.20	n/a	100	0.69	35	0.24	7.00	177.80	0.68	1.01
19042501002▲	2-1/2	63.50	2.90	73.66	n/a	100	0.69	35	0.24	8.00	203.20	1.00	1.49
19043001002▲	3	76.20	3.43	87.12	n/a	90	0.62	30	0.21	10.00	254.00	1.18	1.76
19043501002▲	3-1/2	88.90	4.03	102.36	n/a	75	0.52	25	0.17	12.00	304.80	1.45	2.16
19044001002▲	4	101.60	4.52	114.81	n/a	75	0.52	25	0.17	14.00	355.60	1.82	2.71
19046001002▲	6	152.40	6.70	170.18	n/a	50	0.34	15	0.10	25.00	635.00	3.00	4.46

* Size 6" I.D. is 40 ft. to a coil, all other sizes are 100 ft. to a coil
 ▲ = Make To Order (MTO)
 n/a = Not Applicable

**RADIAL FLEX® STANDARD DUTY
CORRUGATED GREEN**

This is a standard duty, multipurpose PVC hose which applications include are industrial, chemical, construction, farm and mining. This is a **full vacuum** rated hose. Radial Flex Standard Duty Corrugated Green hose is recommended for use between 0°F to +150°F. Outside these limits, rubber hose is recommended. The corrugated construction makes this the lightest and most flexible Radial Flex hose.



Resistance:



Branding:

None

Cover Color: Green
Oil Resistance: Medium
Construction:
Tube: PVC
Cover: PVC
Reinforcement: Helical PVC rod
Temperature Range: 0°F to +150°F
 -18°C to +66°C
Packaging: Coils, 100 ft. maximum – 1-1/2" to 4" I.D.

70 Degrees F 150 Degrees F

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
19151501002	1-1/2	38.10	1.73	43.94	n/a	55	0.38	15	0.10	4.00	101.60	0.31	0.46
19152001002▲	2	50.80	2.28	57.91	n/a	50	0.34	15	0.10	5.00	127.00	0.48	0.71
19152501002▲	2-1/2	63.50	2.81	71.37	n/a	45	0.31	12.5	0.09	6.00	152.40	0.67	1.00
19153001002▲	3	76.20	3.30	83.82	n/a	40	0.28	12.5	0.09	7.00	177.80	0.84	1.25
19154001002▲	4	101.60	4.46	113.28	n/a	35	0.24	10	0.07	10.00	254.00	1.63	2.43

▲ = Make To Order (MTO)
 n/a = Not Applicable

DARI-PREEN CREAMERY

Dari-Preen is designed for washdown service in creameries, dairies, packing houses, canneries and food processing plants. It features an EPDM tube and cover. Color coded white to indicate washdown service and cleanliness. Its tough cover resists scuffing and cracking. Dari-Preen handles hot water up to 200°F at 50 psi and it is rated for working pressures up to 250 psi on 1/2" I.D.



Resistance:

Branding: Size WP Dari-Preen
Made In USA

Cover Color: White
Oil Resistance: Limited
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
-40°C to +82°C
Packaging: Reels, †50 ft. length – 1 per carton

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00544808400	1/2	12.70	0.91	23.02	4	250	1.72	3.00	76.20	0.29	0.43
00544812400	3/4	19.05	1.25	31.75	4	200	1.38	4.50	114.30	0.50	0.74
00544812450†	3/4	19.05	1.25	31.75	4	200	1.38	4.50	114.30	0.50	0.74

Reusable Nozzle

Product Number	Nominal I.D.	
	(inches)	(mm)
00544912401	3/4	19.05

SANI-WHITE™ WASHDOWN

Sani-White Washdown hose is recommended for open-end washdown service in food processing plants where service is not too severe, such as dairies, canneries, packing houses and bottling plants. This hose features a SBR tube that is heat resistant and stands up to the action of hot water and steam. It also resists saturated steam pressure to 40 psi (287°F) in open end service. Sani-White Washdown hose is available in tapered and straight ends. The white NBR/PVC cover resists oil, grease and cleaning compounds.



Resistance:

Branding: Thermoid HBD Industries
Sani-White Washdown
Made In USA

Cover Color: White
Oil Resistance: Limited
Construction:
Tube: SBR
Cover: NBR/PVC
Reinforcement: Plies of strong fabric
Temperature Range: -20°F to +160°F
-29°C to +71°C
Packaging: Tapered end – 50 ft. lengths
Will not cut tapered ends
Minimum run – 1200 ft. per size.

Straight End

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21284460502	1/2	12.70	0.94	23.81	3	150	1.03	n/a	n/a	0.25	0.37
21284461502	3/4	19.05	1.16	29.37	3	125	0.86	n/a	n/a	0.33	0.49
21284462502▲	1	25.40	1.47	37.31	4	100	0.69	n/a	n/a	0.46	0.68

▲ = Make To Order (MTO)
n/a = Not Applicable

Tapered End

Product Number	Nominal I.D.		Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21284465502▲	3/4	19.05	1.16	29.37	3	125	0.86	n/a	n/a	0.33	0.49

▲ = Make To Order (MTO)
n/a = Not Applicable

ALARM® BOOSTER – Thermocure

Thermoid's Alarm Booster hose is a high quality all-purpose fire engine booster hose product. Built to take rugged treatment, this hose has a red, NBR/PVC cover that resists abrasion while providing a smooth surface for easy handling, making it the driver's choice. This hose is engineered to be dimensionally stable and will not flatten or crush reels. The SBR/Nitrile tube is reinforced with multiple spiral aramid yarns. This hose is designed to provide a constant working pressure up to 800 psi for maximum safety. Alarm Booster hose is available in three sizes. It can also be ordered in coupled lengths, complete with factory-installed, reattachable, chrome-plated aluminum NST spanner hole couplings.



Resistance:



Branding:

Thermoid Alarm Booster
Size WP Made In USA

- Cover Color:** Red
- Oil Resistance:** Medium, high
- Construction:**
 - Tube:** NBR/PVC, RMA Class A
 - Cover:** NBR/PVC, RMA Class A, 1-1/2" I.D. EPDM
 - Reinforcement:** 2-spiral aramid yarn
- Temperature Range:** -20°F to +190°F, 1-1/2" I.D. -40°F to +190°F
-29°C to +88°C, 1-1/2" I.D. -40°C to +88°C
- Packaging:** Reels, coupled lengths available on a make-to-order basis

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22212482662	3/4	19.05	1.19	30.16	2	800	5.51	4.50	114.30	0.41	0.61
22214642662	1	25.40	1.50	38.10	2	800	5.51	7.00	177.80	0.51	0.76
00142524301	1-1/2	38.10	2.00	50.80	4	250	1.72	10.50	266.70	0.71	1.06

* Reattachable chrome-plated aluminum NST spanner hole couplings available to fit 3/4" and 1" I.D.

FIRE EXTINGUISHER – UL92

This durable hose is specifically designed for use on portable or stationary fire extinguishers. It is Underwriters Registered to UL92. It features an EPDM tube that will handle temperatures down to -65°F. The synthetic high tensile cord reinforcement provides excellent flexibility and strength. The hose has a black, perforated cover. It offers superior performance and provides a constant working pressure of 250 psi. Thermoid Fire Extinguisher hose can be supplied in either bulk or cut to order lengths.



Resistance:



Branding:

Ex. 3583 (Size) Fire Ext. and Booster Hose Issue No. 2051 U/L Listed Max. Working Pressure 250 PSIG - 54°C (-65°F)

- Cover Color:** Black
- Oil Resistance:** Medium
- Construction:**
 - Tube:** EPDM, RMA Class C
 - Cover:** EPDM, RMA Class C
 - Reinforcement:** Synthetic high tensile cord
- Temperature Range:** -65°F to +190°F
-54°C to +88°C
- Packaging:** Bulk or cut lengths

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00134606305▲	3/8	9.53	0.69	17.46	2	250	1.72	2.25	57.15	0.14	0.21
00134608305▲	1/2	12.70	0.94	23.81	4	250	1.72	3.00	76.20	0.26	0.39

▲ = Make To Order (MTO)

TULINE WELDING, GRADE R

Flex Strength® Tuline Welding hose is lightweight, flexible and available from stock in a wide range of sizes. The hoses come in two popular grades, R and T. Both grades come in single line and tuline styles, with or without corrugated covers. Each of these styles and grades features multi-spiral construction for maximum kink resistance. They have a specially designed cover with multi-ventilated pores that enhance welder safety by dispersing permeating gases. All Thermoid Flex Strength Welding hose meets or exceeds the requirements of RMA and the Compressed Gas Association. These hoses are manufactured to a 4-1 safety factor. The air mandrel cure eliminates clogged nozzles, assures a non-contaminated tube and promotes an even flow of gas to the nozzles.

	Resistance:
	
	Branding:
Size, Grade R Acetylene Only – Std. Duty WP RMA 1P-7-99 Date Code	

Grade R
Cover Color: Red, Green
Oil Resistance: Limited - (Acetylene Only)
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: *Cut and coupled lengths

	Resistance:
	
	Branding:
Size, Grade R Acetylene Only – Std. Duty WP RMA 1P-7-99 Date Code	

Grade R
Cover Color: Red, Green
Oil Resistance: Limited - (Acetylene Only)
Construction:
Tube: EPDM
Cover: EPDM
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
 -40°C to +82°C
Packaging: *Cut and coupled lengths

TULINE WELDING, GRADE R

Red is for acetylene use only, and where cover must resist abrasion, weather and ozone.

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00521403200	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.15	0.22
00521404200	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.21	0.32
00521405200	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.25	0.37
00521406200	3/8	9.53	0.66	16.67	2	200	1.38	2.25	57.15	0.28	0.41

TULINE WELDING, GRADE R – Cut & Coupled (B&B)

Product Number	Nominal I.D.		Lengths	
	(inches)	(mm)	(feet)	(meters)
00521403215▲	3/16	4.76	12.50	3.81
00521403225	3/16	4.76	25.00	7.62
00521403249	3/16	4.76	50.00	15.24
00521403291	3/16	4.76	100.00	30.48
00521484212▲	1/4	6.35	12.50	3.81
00521484225	1/4	6.35	25.00	7.62
00521484250	1/4	6.35	50.00	15.24
00521484290	1/4	6.35	100.00	30.48
00521405226▲	5/16	7.94	25.00	7.62
00521405252	5/16	7.94	50.00	15.24
00521405291▲	5/16	7.94	100.00	30.48
00521406226▲	3/8	9.53	25.00	7.62
00521406251▲	3/8	9.53	50.00	15.24
00521406290▲	3/8	9.53	100.00	30.48



▲ = Make To Order (MTO)

SINGLE LINE CORRUGATED WELDING, GRADE R, TYPE S

Red or Green. Red is for acetylene use only, and where cover must resist abrasion, weather and ozone.

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Green											
00521803205	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.08	0.12
00521804205	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.11	0.16
00521804405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.14	0.21
00521805400▲	5/16	7.94	0.66	16.69	2	200	1.38	2.00	50.80	0.16	0.24
00521806400	3/8	9.53	0.72	18.26	2	200	1.38	2.25	57.15	0.18	0.27
Red											
00521903205	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.08	0.12
00521904205	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.11	0.16
00521904405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.14	0.21
00521905400	5/16	7.94	0.66	16.69	2	200	1.38	2.00	50.80	0.16	0.24
00521906400	3/8	9.53	0.72	18.26	2	200	1.38	2.25	57.15	0.18	0.27

▲ = Make To Order (MTO)

TULINE WELDING, GRADE T

Flex Strength® Tuline Welding hose is lightweight, flexible and available from stock in a wide range of sizes. The hoses come in two popular grades, T and R. Both grades come in single line and tuline styles, with or without corrugated covers. Each of these styles and grades features multi-spiral construction for maximum kink resistance. They have a specially designed cover with multi-ventilated pores that enhance welder safety by dispersing permeating gases. All Thermoid Flex Strength Welding hose meets or exceeds the requirements of RMA and the Compressed Gas Association. These hoses are manufactured to a 4-1 safety factor. The air mandrel cure eliminates clogged nozzles, assures a non-contaminated tube and promotes an even flow of gas to the nozzles.



Grade T

- Cover Color:** Red, Green
- Fuel Resistance:** Medium - High - (All Fuel Gases)
- Construction:**
 - Tube:** Polychloroprene (CR)
 - Cover:** Polychloroprene (CR)
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -40°F to +180°F
-40°C to +82°C
- Packaging:** Reels, *Cut and coupled lengths



Grade T

- Cover Color:** Red, Green
- Fuel Resistance:** Medium - High - (All Fuel Gases)
- Construction:**
 - Tube:** Polychloroprene (CR)
 - Cover:** Polychloroprene (CR)
 - Reinforcement:** Spiral polyester yarn
- Temperature Range:** -40°F to +180°F
-40°C to +82°C
- Packaging:** Reels, *Cut and coupled lengths

TULINE WELDING, GRADE T

For use with all fuel gases, and where a flame and oil resistant tube and cover are required.

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00521503200▲	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.17	0.25
00521504200	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.24	0.36
00521505200▲	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.27	0.40
00521506200	3/8	9.53	0.66	16.67	2	200	1.38	2.25	57.15	0.31	0.46

▲ = Make To Order (MTO)

TULINE WELDING, GRADE T – Cut & Coupled (B&B)

Product Number	Nominal I.D.		Lengths	
	(inches)	(mm)	(feet)	(meters)
00521583250▲	3/16	4.76	50.00	15.24
00521584212▲	1/4	6.35	12.50	3.81
00521584225▲	1/4	6.35	25.00	7.62
00521584250	1/4	6.35	50.00	15.24
00521584290	1/4	6.35	100.00	30.48
00521585250▲	5/16	7.94	50.00	15.24
00521586250▲	3/8	9.53	50.00	15.24
00521586290▲	3/8	9.53	100.00	30.48



▲ = Make To Order (MTO)

SINGLE LINE CORRUGATED WELDING, GRADE T

Red or Green. Red is used with all fuel gases, and where a flame and oil resistant tube and cover are required.

Product Number	Nominal I.D.		Nominal O.D.		Reinforcement Spirals	Working Pressure		Min. Bend Radius		Weight	
	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Green											
00523803205▲	3/16	4.76	0.44	11.11	4	200	1.38	1.25	31.75	0.08	0.12
00523804405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.15	0.22
00523805400▲	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.14	0.21
00523806400▲	3/8	9.53	0.72	18.26	4	200	1.38	2.25	57.15	0.20	0.30
Red											
00523903205▲	3/16	4.76	0.44	11.11	4	200	1.38	1.25	31.75	0.08	0.12
00523904405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.15	0.22
00523905400▲	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.14	0.21
00523906400▲	3/8	9.53	0.72	18.26	4	200	1.38	2.25	57.15	0.20	0.30

▲ = Make To Order (MTO)



WELDING HOSE TECHNICAL INFORMATION

PRECAUTIONS IN THE USE OF WELDING HOSE

WARNING: The use of certain fuel gases may damage welding hose and lead to fires and explosions.

FOREWORD:

This bulletin is issued to alert dealers and users of welding hose that special hose may be necessary for use with certain fuel gases.

SCOPE:

This bulletin relates to welding hose manufactured in conformance to RMA/CGA specification or to welding hose conforming to individual manufacturer or user specifications.

CAUTION:

The fuel gases listed below are recorded to alert welding hose users to a potential hazard with these or similar gases. It should be noted that no condemnation of any of the gases listed is intended. The purpose is to advise against the use of hose that may not be designed for a particular gas or pressure. A user of any fuel gas is urged to relate the type of gas along with the expected working pressure (regulator setting) to the hose manufacturer for a specific hose recommendation.

ALERT LISTING:

These and similar fuel gases may damage some grades or types of welding hose:

APACHE, FLAMEX, MAPP, PROPANE, PROPYLENE.

Use of the indicated or similar fuel gases at regulator settings above 40 psi may be particularly hazardous.

Users are also alerted against the use of ACETYLENE at any pressure above 15 psi.

IN-SERVICE CAUTION:

The user is first cautioned to shut off the gas at the torch and then at the regulator or supply source when the torch will not be used for periods in excess of 30 minutes, in order to limit permeation of gas through the hose wall.

The user is further cautioned not to shut off the fuel gas at the regulator or supply source first as a flashback may result and thereby damage the hose.

Adequate ventilation must be provided in confined areas where fuel gas is being used to prevent the accumulation or concentration of gas that could be explosive or otherwise harmful to personnel.

BACKGROUND INFORMATION:

The RMA/CGA specification for welding hose, as originally promulgated, considered welding hose that would be used to convey the then common fuel gas, acetylene, at the recommended low pressure (15 psi). Several grades were described, the variance between grades relating to a difference in their resistance to deterioration in the presence of oil, or to their resistance to destruction by flame, or both. No differentiation was made for a variance in performance resulting from exposure to the fuel gas itself. It had been determined that acetylene, when conveyed under the low pressures common to its recommended use, had little effect on hose, regardless of its composition or construction.

In recent years, there have been developed or adopted a number of fuel gases based on specific hydrocarbons or mixtures of hydrocarbons. It is known that these special fuel gases have a different effect on rubber compounds than does acetylene. The precise effect on all the many and varying hose compounds and constructions of the many manufacturers has not been determined for all the known special fuel gases.

The effect of any material being conveyed in a hose on the rubber compounds used in the hose can be measured by one or several test procedures. In the case of fuel gases, the test procedures most applicable would be designed to measure a change of the physical properties after exposure to the fuel gas including tensile, elongation, hardness and volume.

A characteristic of rubber hose that is significant in its use as welding hose is a phenomenon known as permeation. Any gas confined in the bore of a hose exhibits a tendency to pass through the tube wall and subsequently through the reinforcement and cover to the environment. Each gas has its own specific characteristic tendency to permeate. Each rubber compound exhibits specific resistance to permeation. The rate of permeation increases with higher temperature. To minimize the permeation of fuel gas through the hose wall it is logical to design the tube compound for the lowest possible permeation rate. The problem in the case of welding hose results from the variety of gases now encountered, the varying pressures used in service, and the varying temperatures to be found in the work place. The need to ventilate the work place is evident, both for maintaining the lowest practical temperature and to dissipate the permeating gas, however slight, to prevent buildup to concentrations that are either explosive or dangerous for breathing by workmen.

Some rubber compounds are known to have low permeation rates with several fuel gases but no specific rule can be laid down to predict overall performance. Thus, it becomes advisable to check the characteristic of each hose construction with each gas under actual or simulated service conditions to qualify it for use.















CAUTION:

Users of welding hose are urged to communicate their service conditions to the hose manufacturer and obtain the best recommendation of the manufacturer for a hose suitable for those conditions.

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BULK TRANSFER/TRANSPORTER® HOSE PRODUCT REFERENCE

TECHNICAL REFERENCE

	NAME	I.D. (in.)	TUBE	COVER	COLOR	APPLICATION DATA
Chemical	 ULTRA-CHEM	1-6	UHMWPE	EPDM	Green w/Yellow Stripe	Handles 98% of all common industrial chemicals in pressure, gravity flow and suction service
	 MULTI-CHEM	1-4	XLPE	EPDM	Green/Black w/Orange Stripe	Extreme versatility, resists 95% of all industrial chemicals
	 CHLORO-CHEM	1¼-4	CM	EPDM	Green w/White Stripe	Resists 75% of all industrial chemicals; maximum temperature limitation 150°F
	 CHEMICAL H	1-4	1/16" CSM	CR	Yellow w/Red Stripe	Designed primarily for the handling of inorganic acids, alcohols, and highly corrosive chemicals
	 CHEMICAL B	1-4	IIR	EPDM	Brown	General purpose chemical hose for handling strong and oxidizing acids, esters, ketones and alcohols
	 CHEMICAL V	1½-4	FKM	NBR/PVC	Orange	Handles a wide range of moderate and oxidizing chemicals, and aromatic solvents such as benzene, toluene and chlorinated hydrocarbons
Petroleum	 EBONITE L.T.	1½-4	NBR/ECO	NBR	Black w/Blue Stripe	Extremely flexible, lightweight, sub-zero (to -65°F) corrugated drop hose
	 EBONITE	1-4	NBR	NBR/PVC	Black w/White Stripe	Frequently used to replace plastic drop hose; exceptional flexibility and lightweight
	 X.L.W. CORRUGATED	2-4	NBR	CR	Red w/White Stripe	Easy to maneuver, "fight-free" hose for the transfer of petroleum based products
	 L.W. CORRUGATED TANK TRUCK	2-4	NBR	NBR/PVC	Orange/Black	Bulk transfer of gasoline or other petroleum based products. Corrugated for additional flexibility
	 RED/BLACK TANK TRUCK	Red-1½-4 Black-1-4	NBR	NBR/PVC	Red/Black	For transfer of petroleum based products where strength, lightweight and flexibility are required
	 TYPE 924 PETROLEUM TRANSFER	1-4	NBR	NBR/PVC	Black w/Red Stripe	Handles most hydrocarbons, fats, etc., along with hydraulic fluid and a wide range of chemicals
	 VAPOR RECOVERY	3-4	NBR	NBR/PVC	Black w/White Stripe	For the recovery of hydrocarbon vapors during bulk loading of gasoline
	 OIL FIELD VACUUM	1½-4	NBR/SBR	SBR/EPDM	Black	Designed for crude oil transfer; lightweight and flexible
	 FUEL TRANSFER	2-4	NBR	NBR/PVC	Black	Handles gasoline fuel oil delivery applications
	 GRAY SHADOW	1½-4	NBR White FDA	NBR/PVC	Gray	Handles wide variety of liquids, including oily edibles
Liquid Food	 FOOD SUCTION	1¼-4	NBR White FDA	NBR/PVC	White	FDA acceptable for handling liquid food products including oily edible materials
	 FOOD DISCHARGE	2-4	NBR White FDA	NBR/PVC	White w/Green Stripe	Same as Transporter Food Suction except for discharge service only
	 MATERIAL SUCTION	1½-4	3/16" NR White FDA	SBR	Blue	Handles a wide variety of materials: mild acids; dry materials such as sand, limestone and fertilizers; dry foods such as grain, flour and sugar
Material Handling	 MATERIAL DISCHARGE	2-4	3/16" NR White FDA	SBR	Blue w/Yellow Stripe	Same as Transporter Material Suction except for discharge service only
	 HOT TAR & ASPHALT	1½-4	CR	CR	Black	For hot petroleum based products such as asphalt
	 TYPE 120 DRY CEMENT/MATERIAL	4	1/8", 3/16", 1/4" Available SBR/NR	SBR/EPDM	Black	Transfer of dry cement and other mildly abrasive materials
	 HOT AIR BLOWER	2½-4	EPDM	EPDM	Brown	For conveying hot air from compressor to trailer on dry bulk material trucks

CHEMICAL RESISTANCE CHART

This chart is designed to help you select the correct hose or hoses to conduct the many types of materials found in industry. It should be used only as a guide because the ability of a particular tube compound to resist a material depends on many variables—temperature, concentration, pressure, velocity, duration of exposure, aeration, stability of the fluid, etc. The special variations in elastomer types and their compounding for specific service conditions play an important part in the service life of the hose.

WARNING: The following data has been compiled from generally available sources and should not be relied upon without consulting and following the hose manufacturer's specific chemical recommendations. Neglecting to do so might result in failure of the hose to fulfill its intended purpose, and may result in possible damage to property and serious bodily injury.

Refer to additional information and warnings on pages 2, 7-13, 117 and 128.

If you have any questions about the suitability of a hose for a particular service, contact HBD Industries' Customer Service Department, 800/438-2312, for a recommendation.

The most commonly used chemicals, materials, oil, solvents, etc., are listed here. Ratings are for concentrated or saturated solutions at room temperature (70°F) unless otherwise specified. The rating code indicates the degree or range of serviceability for each style of hose listed under the group headings.

RATING CODE:

A – Excellent. Suitable for continuous service.

B – Good. Generally suitable for continuous service and for intermittent service.

C – Fair or Conditional. NOT recommended for continuous service, but generally suitable for intermittent service.

D – Unsatisfactory. Not Recommended.

1. Anhydrous Ammonia Hose Only
2. FDA Tube Required
3. Use Butane-Propane Hose Only
4. (See HCL 37%)
5. Contact HBD Technical

These ratings are to be used only as a guide.

As a guide to the user of hose in contact with oil, the oil resistance classes and corresponding description are listed.

PHYSICAL PROPERTIES AFTER EXPOSURE TO OIL

	Volume Change Maximum	Tensile Strength Retained
Class A (High oil resistance)	+25%	80%
Class B (Medium-High oil resistance)	+65%	50%
Class C (Medium oil resistance)	+100%	40%

	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Acetal	C	C	B	D	C	C	C	D	D	B		B
Acetaldehyde	C	D	A	D	C	C	A	D	D	A		A
Acetamide	C	C	A	B	B	B	A	C	B	A		A
Acetate Solvents	C	D	C	D	D	D	C	D	D	A	B	A
Acetic Acid, 10%	D	D	B	D	C	B	B	C	A	A	A	A
Acetic Acid, 30%	D	D	B	C	B	B	C	C	A	A	A	A
Acetic Acid, 50%	D	D	B	C	C	D	B	C	D	B	A	B
Acetic Acid, Glacial	D	D	B	D	C	D	D	D	D	B	A	B
Acetic Anhydride	D	D	B	D	D	B	B	D	D	B	A	B
Acetic Ester (Ethyl Acetate)	D	D	B	D	D	D	B	D	D	A	B	A
Acetic Ether (Ethyl Acetate)	D	D	B	D	D	C	B	D	D	A	B	A
Acetic Oxide (Acetic Anhydride)	D	D	C	D	D	B	B	D	D	A	A	A
Acetone	B	B	A	D	C	C	A	D	D	A	A	A
Acetophenone	C	D	A	D	D	D	A	D	D	B		B
Acetyl Acetone	D	D	B	D	D	D	A	D	D	A	B	A
Acetyl Chloride	D	D	C	D	D	C	D	B	B	A	A	B
Acetylene	A	A	A	A	A	C	B	B	A	A		A
Acrylonitrile	B	D	D	D	D	D	D	D	D	B	A	B
Air	A	A	A	A	A	A	A	A	A	A	A	A
Alcohols, Aliphatic	A	B	A	A	A	A	A	A	C	A	A	A
Alcohols, Aromatic	C	D	D	C	C	D	D	B	A	A	C	A
Alk-Tri (Trichloroethylene)	D	D	D	D	D	D	D	B	A	D	A	D
Allyl Alcohol	A	B	A	A	A	A	A	A	B	A	A	A
Allyl Bromide	D	D	D	D	D	D	D	D	B	B	A	B
Allyl Chloride	D	D	D	D	D	D	D	B	B	B	A	B
Alum (Ammonium) Potassium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Acetate	A	C	B	B	B	B	B	B	C	A	A	A
Aluminum Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Fluoride	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Hydroxide	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Phosphate	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Sulfate	B	A	A	A	A	A	A	A	A	A	A	A
Ammonia, Anhydrous	A	C	A	B	A	B	A	C	D	A	A	A
Ammonia, Liquid	B	B	A	A	A	A	A	C	A	A	A	A
Ammonia, in Water	B	B	B	B	B	A	B	B	A	A	A	A
Ammonia, Gas (Cold)	Anhydrous Ammonia Hose Only											
Ammonia, Gas (150°F)	Anhydrous Ammonia Hose Only											
Ammonium Carbonate	A	A	A	C	A	A	A	A	A	A	A	A
Ammonium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Hydroxide	B	B	A	B	B	A	B	B	B	A	A	A
Ammonium Metaphosphate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Nitrate	B	A	A	A	A	A	A	A	A	A	A	A
Ammonium Nitrite	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Persulfate	A	D	A	D	A	A	B	C	A	A		A
Ammonium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A

These ratings are to be used only as a guide.

	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Ammonium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Thiocyanate	A	A	A	A	A	A	A	A	A	A	A	A
Ammonium Thiosulfate	A	A	A	A	A	A	A	A	A	A	A	A
Amyl Acetate	C	D	B	D	D	D	B	D	D	D	C	D
Amyl Acetone	D	D	B	D	D	D	B	D	D	A		A
Amyl Alcohol	A	A	A	A	A	A	A	B	A	A	A	A
Amylamine	C	B	B	C	D	C	D	C	D	A	B	A
Amyl Borate	D	D	D	A	C	C	D	C	A	A		A
Amyl Chloride	D	D	D	D	D	D	D	D	A	A	C	A
Amyl Chloronaphthalene	D	D	D	B	D	D	D	C	A	A		A
Amyl Naphthalene	D	D	D	D	D	D	D	C	A	A		A
Amyl Oleate	D	D	B	D	D	D	B	C	C	A		A
Amyl Phenol	D	D	D	D	D	D	D	C	A	A		A
Anethole	D	D	D	D	D	D	D	D	B	B	D	B
Aniline	D	D	B	D	C	D	C	B	D	B	B	B
Aniline Dyes	C	C	B	C	C	C	B	C	B	A		A
Aniline Hydrochloride	A	C	C	C	D	D	B	C	B	A		A
Animal Fats	D	D	B	A	B	B	B	A	A	A	A	A
Animal Grease	D	D	C	B	B	C	B	B	A	A	B	A
Animal Oils	D	D	B	A	D	D	C	B	A	A	A	A
Ansul Ether	D	D	C	C	D	D	C	D	D	A		A
Antifreeze (Ethylene Glycol)	A	A	A	A	A	A	A	A	A	A	A	A
Antimony Trichloride	D	D	A	B	B	B	B	C	A	A		B
Antimony Pentachloride	D	D	C	D	D	D	C	C	A	B		B
Aqua Regia	D	D	D	D	D	C	C	D	B	D	B	B
Aromatic Hydrocarbons	D	D	D	C	D	D	D	B	A	A	C	A
Arguard	A	A	A	A	A	A	A	A	A	A		A
Arsenic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Arsenic Chloride	D	D	D	C	A	D	B	C	D	D		D
Arsenic Trichloride	D	D	D	C	A	D	B	C	D	D		D
Asphalt	D	D	D	A	B	D	B	A	A	B		B
Astm #1 Oil	D	D	D	A	A	B	D	A	A	A	A	A
Astm #2 Oil	D	D	D	A	B	C	D	A	A	A	A	A
Astm #3 Oil	D	D	D	A	B	C	D	A	A	A	A	A
Aviation Gasoline	D	D	D	A	C	D	D	A	A	A	B	A
Barium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Barium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Barium Hydroxide	A	A	A	A	A	A	A	A	A	A	A	A
Barium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Barium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Beer	(F.D.A. Tube Required)											
Beet Sugar Liquors	A	A	A	A	A	A	A	A	A	A	A	A
Benzaldehyde	D	D	B	D	D	D	B	D	D	A	C	A
Benzene (Benzol)	D	D	D	C	D	D	D	C	A	A	C	A
Benzene Sulfonic Acid	D	D	D	C	A	A	C	B	A	A		A
Benzine Solvent (Ligroin)	D	D	D	A	B	D	D	B	A	A		A
Benzoic Acid	B	D	A	D	A	B	B	C	A	A	A	A
Benzoic Aldehyde	D	D	D	D	D	D	D	C	D	A		A
Benzotrithloride	D	D	D	D	D	D	D	D	B	B	D	B

	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Benzoyl Chloride	D	D	D	D	D	D	D	D	B	B	D	B
Benzyl Acetate	D	D	B	D	D	B	B	D	D	A	A	A
Benzyl Alcohol	B	B	B	D	B	B	B	D	A	A	A	A
Benzyl Chloride	D	D	C	D	D	D	D	D	A	A	D	A
Bichromate of Soda (Sodium Dichromate)	D	D	A	D	B	B	C	C	A	A	A	A
Black Sulfate Liquor	B	B	A	B	A	B	A	A	A	A		A
Blast Furnace Gas	D	D	C	C	B	B	C	C	A	A		A
Bleach Solutions	D	D	B	D	D	C	B	D	B	B	A	B
Borax	B	B	A	B	A	A	A	A	A	A	A	A
Bordeaux Mixture	B	B	A	A	A	A	A	A	A	A		A
Boric Acid	A	A	A	A	A	A	A	A	A	A	A	A
Brandy	(F.D.A. Tube Required)											2
Brine	A	A	A	A	A	A	A	B	A	A	A	A
Bromine	D	D	D	D	D	C	D	D	C	D		D
Bromine Water	D	D	C	C	B	A	C	C	A	A		A
Bromobenzene	D	D	D	D	D	D	D	D	B	C	D	C
Bunker Oil	D	D	D	A	B	D	D	A	A	A	A	A
Butanol (Butyl Alcohol)	A	A	A	B	A	A	A	A	A	A	A	A
Butadiene	D	D	D	D	C	B	D	D	A	C		C
Butane	Use Butane—Propane Hose Only											3
Butter (Non F.D.A.)	C	C	A	A	B	A	B	A	A	A	A	A
Butyl Acetate	D	D	B	D	D	D	C	D	D	A	B	A
Butyl Acrylate	D	D	D	D	D	D	D	D	D	B	B	B
Butylamine	B	C	C	C	D	C	C	D	A	B	A	A
Butyl Benzene	D	D	D	D	D	D	D	D	A	A	C	A
Butyl Bromide	D	D	D	D	D	D	D	D	B	B	C	B
Butyl Butyrate	D	D	C	D	D	D	B	C	C	B	C	B
Butyl Carbitol	D	D	A	B	B	B	A	A	A	A	A	A
Butyl Cellosolve	D	D	A	B	B	B	A	A	D	A	B	A
Butyl Chloride	D	D	C	D	D	D	D	C	A	B	C	B
Butyl Ether	D	D	C	B	B	B	C	B	D	A	A	A
Butyl Ethyl Acetaldehyde	D	D	C	D	D	D	D	C	D	A		A
Butyl Ethyl Ether	D	D	C	D	D	B	C	C	C	A	A	A
Butyl Oleate	D	D	B	D	D	D	B	C	A	A		A
Butyl Phthalate	D	D	C	D	D	D	C	C	A	C	A	A
Butyl Stearate	D	D	C	B	D	D	C	C	A	A	B	A
Butyraldehyde	C	D	D	D	D	D	D	D	A	B	A	A
Butyric Acid	C	D	C	C	C	B	C	B	C	A	A	A
Butyric Anhydride	C	D	C	C	D	B	C	B	C	A		A
Calcium Acetate	C	D	A	D	D	D	A	C	D	A	B	A
Calcium Bisulfate	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Bisulfite	C	A	B	A	A	A	C	A	A	A	A	A
Calcium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Hydroxide	A	B	A	B	A	B	A	A	C	A	A	A
Calcium Hypochlorite	D	D	B	D	D	C	B	C	A	B	A	B
Calcium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A

These ratings are to be used only as a guide.

	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Calcium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A
Caliche Liquor (Crude Sodium Nitrate)	A	A	A	C	B	A	A	A	A	A	A	A
Cane Sugar Liquors (Non F.D.A.)	A	A	A	A	A	A	A	A	A	A	A	A
Carbitol	D	D	A	B	B	B	B	C	A	A	A	A
Carbitol Acetate	D	D	B	D	D	D	B	C	D	A		A
Carbolic Acid (Phenol)	D	D	B	D	C	C	C	D	A	A	A	A
Carbon Bisulfide (See Carbon Disulfide)												
Carbon Dioxide	A	A	A	A	A	A	A	A	A	A	A	A
Carbon Disulfide	D	D	D	D	D	D	D	D	A	A	C	C
Carbonic Acid	A	A	A	A	A	A	A	A	A	A	A	A
Carbon Monoxide	A	A	A	A	A	A	A	A	A	A	A	A
Carbon Tetrachloride	D	D	B	C	D	D	B	D	A	C	C	C
Carbon Tetrafluoride	D	D	D	C	D	D	D	C	A	C		C
Castor Oil	C	D	B	A	B	C	B	A	A	A	A	A
Caustic Potash (Potassium Hydroxide)	A	B	A	A	B	A	A	A	C	A	A	A
Caustic Soda (Sodium Hydroxide)	A	B	A	B	B	B	A	A	C	A	A	A
Cellosolve	D	D	B	B	A	B	B	B	C	A	A	A
Cellulose Acetate	C	D	B	D	C	C	B	C	D	B		B
Cellulose	C	D	B	D	D	D	A	D	C	A		A
China Wood Oil (Tung Oil)	D	D	B	A	B	B	B	B	A	A	A	A
Chlorine Dioxide	D	D	D	D	D	C	D	D	A	B		B
Chlorine Gas (Dry)	C	C	C	C	D	B	C	B	A	B		B
Chlorine, Water Solns. (2%)	C	D	C	D	D	B	C	C	A	A		A
Chloroacetic Acid	B	D	C	D	D	D	C	D	C	A		D
Chloroacetone	D	D	B	D	D	B	D	D	D	A	D	A
Chlorobenzene	D	D	D	D	D	D	D	D	A	B	D	B
Chlorobutane	D	D	D	D	D	D	D	D	A	B	C	B
Chlorobutadiene	D	D	D	D	D	D	D	D	A	B		B
Chloroform	D	D	D	D	D	D	D	D	A	B	C	B
Chlorinated Hydrocarbons	D	D	D	D	D	D	D	D	A	B	D	B
Chloropentane	D	D	D	D	C	D	D	C	A	A	C	A
Chlorophenol	D	D	D	D	D	D	D	D	B	B	C	B
Chloropropanone	D	D	C	D	D	D	C	D	D	A	D	A
Chlorosulfonic Acid	D	D	D	D	D	C	D	C	D	B		B
Chlorothene (Trichloroethane)	D	D	D	D	D	D	D	C	A	B	C	B
Chlorotoluene	D	D	D	D	D	D	D	D	A	B	B	B
Chromic Acid	D	D	D	D	D	A	C	C	A	A	A	A
Citric Acid	A	A	A	B	B	A	A	A	A	A	A	A
Coal Oil	D	D	D	A	B	D	D	B	A	A	A	A
Coal Tar	D	D	D	A	B	B	B	A	A	A	A	A
Coal Tar Naptha	D	D	D	C	C	D	D	C	A	A	A	A
Cobalt Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Coconut Oil	D	D	B	A	B	B	A	A	A	A	A	A
Cod Liver Oil	D	D	A	A	B	B	A	A	A	A	A	A

	NATURAL RUBBER		SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Coke Oven Gas	D	D	C	D	D	B	D	C	A	A	A	A	A
Copper Arsenate	A	A	A	A	A	A	A	A	A	A	A	A	A
Copper Chloride	A	A	A	A	A	A	A	A	A	A	A	A	A
Copper Cyanide	A	A	A	A	A	A	A	A	A	A	A	A	A
Copper Nitrate	A	A	A	A	A	A	A	A	A	A	A	A	A
Copper Nitrite	A	A	A	A	A	A	A	A	A	A	A	A	A
Copper Sulfate	C	A	A	A	A	A	A	A	A	A	A	A	A
Copper Sulfide	C	A	A	A	A	A	A	A	A	A	A	A	A
Corn Oil	D	D	B	A	B	B	B	A	A	A	A	A	A
Cottonseed Oil	D	D	A	A	B	B	A	A	A	A	A	A	A
Creosote (Wood)	D	D	D	B	C	C	D	B	A	A	A	A	A
Creosote (Coal Tar)	D	D	D	B	C	C	D	B	A	A	A	A	A
Cresols	D	D	D	C	C	C	D	C	A	A	A	A	A
Cresylic Acid	D	D	D	C	C	C	D	C	A	A	A	A	A
Crotonaldehyde	D	D	A	D	D	D	C	D	A	A	A	A	A
Crude Oil	D	D	D	A	C	D	D	A	A	A	A	A	A
Cumene	D	D	D	C	D	D	C	A	A	A	C	A	A
Cupric Carbonate	C	C	A	B	B	B	A	B	A	A	A	A	A
Cupric Chloride	C	C	A	A	B	A	A	B	A	A	A	A	A
Cupric Nitrate	C	C	A	A	B	A	A	B	A	A	A	A	A
Cupric Nitrite	C	C	A	A	B	A	A	B	A	A	A	A	A
Cupric Sulfate	C	B	A	A	B	B	A	A	A	A	A	A	A
Cyclohexane	D	D	D	B	D	D	D	B	A	A	A	A	A
Cyclohexanone	D	D	D	D	D	D	D	C	A	C	A	A	A
Cyclohexanol	D	D	D	B	B	D	D	B	B	A	A	A	A
Cyclopentane	D	D	D	C	D	D	D	B	A	A	C	A	A
P-Cymene	D	D	D	C	D	D	D	B	A	A	C	A	A
DDT In Kerosene	D	D	D	A	B	C	D	A	A	A	A	A	A
Decaline	D	D	D	D	D	D	D	D	A	A	C	A	A
Decane	D	D	D	B	D	D	D	B	A	A	A	A	A
Detergent Solutions	B	B	A	B	A	B	A	A	A	A	A	A	A
Diacetone Alcohol	D	D	A	D	B	B	B	D	D	A	A	A	A
Diamylamine	B	C	A	B	A	C	C	B	B	A	A	A	A
Dibenzyl Ether	D	D	B	D	D	D	D	D	C	A	C	A	A
Dibenzyl Sebacate	C	D	B	D	D	D	B	D	B	A	A	A	A
Dibromobenzene	D	D	D	D	D	D	D	D	A	B	B	B	B
Dibutylamine	B	C	C	B	A	C	B	B	D	A	A	A	A
Dibutylether	D	D	D	D	D	D	B	C	C	A	A	A	A
Dibutylphthalate	D	D	B	D	D	D	A	D	D	A	C	A	A
Dibutyl Sebacate	D	D	B	D	D	D	B	D	B	B	B	B	B
Dicalcium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A	A
Dichloroacetic Acid	D	D	C	D	D	D	C	D	C	A	B	A	A
P-Dichlorobenzene	D	D	D	D	D	D	D	D	A	A	D	B	B
Dichlorobutane	D	D	D	D	D	D	D	D	A	A	C	A	A
Dichloroisopropyl Ether	D	D	C	D	D	D	C	D	C	A	A	A	A
Dicyclohexylamine	D	D	D	D	D	B	D	D	A	B	B	B	B
Dichlorodifluoromethane (Freon 12)	D	D	D	A	B	D	D	B	A	A	A	A	A
Dichloroethane	D	D	C	D	D	D	D	D	A	A	C	C	C

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	NATURAL RUBBER		SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Dichloroethylene	D	D	C	D	D	D	D	D	D	A	A	A	D
Dichloroethyl Ether	D	D	D	D	D	D	D	D	D	C	A	B	A
Dichlorohexane	D	D	D	D	D	D	D	D	D	A	A	C	A
Dichloromethane	D	D	D	D	D	D	D	D	D	A	A	C	A
Dichloropentane	D	D	D	D	D	D	D	D	D	A	A	C	A
Dieldrin In Xylene	D	D	D	D	D	D	D	D	D	A	A	A	A
Dieldrin In Xylene And Water Spray	D	D	D	B	B	D	D	D	B	A	A	A	A
Diesel Oil	D	D	D	A	B	C	D	A	A	A	A	A	A
Diethanolamine	B	C	B	B	B	C	C	B	B	A	A	A	A
Diethylamine	B	C	B	B	B	C	C	B	D	A	B	A	A
Diethyl Benzene	D	D	D	D	D	D	D	D	A	A	C	A	A
Diethyl Ether	D	D	D	B	C	D	D	D	D	A	A	A	A
Diethylene Dioxide	D	D	B	D	D	B	C	D	A	B	A	A	A
Diethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A	A
Diethylenetriamine	B	B	A	B	C	C	A	B	C	A	A	A	A
Diethyl Oxalate	C	D	C	D	D	D	A	D	C	A	A	A	A
Diethyl Phthalate	D	D	A	D	D	D	C	D	C	A	B	A	A
Diethyl Sebacate	D	D	A	D	D	D	C	D	B	A	B	A	A
Diethyl Sulfate	D	D	B	D	D	D	B	D	A	A	A	A	A
Diethyl Triamine	B	C	A	B	B	C	B	B	C	A	A	A	A
Dihydroxyethyl Amine	B	C	A	B	B	C	B	B	C	A	A	A	A
Dihydroxyethyl Ether	A	A	A	A	B	A	B	A	A	A	A	A	A
Diisobutylene	D	D	D	A	B	D	D	A	A	A	C	A	A
Diisobutyl Ketone	D	D	B	D	D	D	B	D	D	A	A	A	A
Diisodecyl Adipate	D	D	A	D	D	C	A	D	C	A	A	A	A
Diisodecyl Phthalate	D	D	A	D	D	C	A	D	C	A	A	A	A
Diisooctyl Adipate	D	D	A	D	D	C	A	D	C	A	A	A	A
Diisooctyl Phthalate	D	D	A	D	D	C	A	D	C	A	A	A	A
Diisopropanol Amine	B	C	A	B	D	C	A	B	C	A	A	A	A
Diisopropyl Benzene	D	D	D	C	D	D	D	C	A	A	A	A	A
Diisopropyl Ether	D	D	D	B	D	D	D	B	B	A	A	A	A
Diisopropyl Ketone	D	D	A	D	D	D	A	D	D	A	C	A	A
Dilauryl Ether	D	D	D	C	D	C	D	D	C	A	A	A	A
Dimethylamine	B	C	A	B	B	C	A	B	C	A	A	A	A
Dimethyl Benzene	D	D	D	D	D	D	D	D	A	A	D	A	A
Dimethylaniline	D	D	D	D	D	D	C	D	D	B	C	B	B
Dimethylformamide (DMF)	C	C	C	D	C	C	C	D	D	A	A	A	A
Dimethyl Ketone (Acetone)	B	C	A	D	C	C	A	D	D	A	A	A	A
Dimethyl Phthalate	D	D	A	D	D	D	B	D	C	A	A	A	A
Dimethyl Sulfate	D	D	B	D	D	D	D	D	D	A	A	A	A
Dimethyl Sulfide	D	D	C	D	D	D	D	D	C	B	B	B	B
Dinitrobenzene	D	D	C	D	C	D	C	D	A	A	A	A	A
Dinitrotoluene	D	D	D	D	D	D	D	D	B	A	A	A	A
Diocetyl Adipate (DOA)	D	D	A	D	D	D	B	D	C	A	C	A	A
Diocetylamine	B	B	A	B	D	C	B	B	C	A	A	A	A
Diocetyl Phthalate (DOP)	D	D	B	D	D	D	B	B	A	A	C	A	A
Diocetyl Sebacate (DOS)	D	D	B	D	D	D	B	D	B	A	C	A	A
Dioxane	D	D	B	D	D	D	B	D	D	A	B	A	A

	NATURAL RUBBER		BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Dioxolane	D	D	C	D	D	D	B	D	C	A	B	A
Dipentene (Limonene)	D	D	D	C	D	D	D	C	A	A	B	A
Diphenyl (Biphenyl)	D	D	D	D	D	D	D	D	A	A		A
Diphenyl Oxide (Phenyl Ether)	D	D	D	D	D	C	D	D	A	A		A
Dipropylene Glycol	A	A	A	A	A	A	A	A	A	A		A
Dipropyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A
Dipropylamine	B	B	A	B	B	C	A	B	C	A	B	A
Disodium Phosphate	A	A	A	A	A	A	A	A	A	A		A
Divinyl Benzene	D	D	D	D	D	D	D	D	A	A	D	A
D.M.P. (Dimethyl Phenols)	D	D	D	D	D	D	D	D	D	C	A	C
Dodecyl Benzene	D	D	D	D	D	D	D	D	A	A		A
Dodecyl Toluene	D	D	D	D	D	D	D	D	A	A		A
Dowfume W 40, 100%	D	D	D	D	C	C	C	D	C	B		B
Dow-Per (Perchloroethylene)	D	D	D	C	D	D	D	C	A	A	C	A
Dowtherm Oil, A and E	D	D	D	D	D	C	D	D	A	A	C	A
Dowtherm S.R.I.	A	A	A	A	A	A	A	A	A	A		A
Dry Cleaning Fluids	D	D	D	C	D	D	D	C	A	B		B
Epichlorohydrin	D	D	C	D	D	C	B	D	D	B		B
Ethanol (Ethyl Alcohol)	A	A	A	A	A	A	A	A	C	A	A	A
Ethanolamine	B	C	B	B	B	C	B	B	D	A	A	A
Ethers	D	D	C	D	D	C	D	D	C	A	A	A
Ethyl Acetate	D	D	B	D	D	C	B	D	D	A	B	A
Ethyl Acetoacetate	D	D	B	D	D	D	B	D	D	A	A	A
Ethyl Acrylate	D	D	C	D	D	D	D	D	D	B	B	B
Ethyl Benzene	D	D	D	C	D	D	D	C	A	A	C	A
Ethyl Benzoate	D	D	B	B	C	C	B	B	C	A		A
Ethyl Butyl Alcohol	A	A	A	A	A	A	A	A	B	A	A	A
Ethyl Butyl Amine	B	C	A	B	B	C	B	B	B	A		A
Ethyl Butyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A
Ethyl Cellulose	B	B	B	B	B	B	B	B	D	A		A
Ethyl Chloride	C	C	D	C	C	D	D	B	A	A		B
Ethyl Dichloride	D	D	D	D	D	D	D	D	B	B	C	B
Ethylene	D	D	D	A	B	C	D	A	A	A		A
Ethylene Bromide	D	D	D	D	D	D	D	D	A	B		B
Ethylene Chloride	D	D	D	D	D	D	D	D	A	B		B
Ethylene Diamine	B	C	A	B	A	C	A	A	D	A	A	A
Ethylene Dibromide	D	D	D	D	D	D	D	D	B	B	C	B
Ethylene Dichloride	D	D	D	D	D	D	D	D	B	B	C	B
Ethylene Glycol	A	A	A	A	A	A	A	A	A	A		A
Ethylene Oxide	D	D	C	D	D	C	D	D	C	A		C
Ethylene Trichloride (Trichloroethylene)	D	D	D	C	D	D	D	C	A	B	C	B
Ethyl Ether	D	D	D	C	D	D	D	B	D	A	A	D
Ethyl Formate	D	D	B	D	D	D	C	D	D	A	A	A
Ethyl Hexanol	A	A	A	A	A	A	A	A	B	A	A	A
Ethyl Methyl Ketone	C	D	B	D	D	D	B	D	D	A	C	A
Ethyl Oxalate	A	A	A	D	D	D	B	D	C	A	A	A
Ethyl Phthalate	D	D	A	D	D	D	B	D	C	A	B	A

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Ethyl Propyl Ether	D	D	D	D	D	D	D	D	C	A	A	A
Ethyl Propyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A
Ethyl Silicate	C	C	A	A	A	A	A	A	A	A	A	A
Ethyl Sulfate	D	D	B	D	D	D	B	D	D	A		A
EX. TRI (Trichloroethylene)	D	D	D	C	D	D	D	C	A	B	C	B
Fatty Acids	D	D	D	B	B	B	C	A	A	A		A
Ferric Bromide	A	A	A	A	A	A	A	A	A	A		A
Ferric Chloride	A	A	A	A	A	A	A	A	A	A		A
Ferric Nitrate	A	A	A	A	A	A	A	A	A	A		A
Ferric Sulfate	A	A	A	A	A	A	A	A	A	A		A
Ferrous Acetate	D	D	A	D	D	D	B	D	D	A		A
Ferrous Ammonium Sulfate	A	A	A	A	A	A	A	A	A	A		A
Ferrous Chloride	A	A	A	A	A	A	A	A	A	A		A
Ferrous Hydroxide	B	C	A	B	A	B	A	B	A	C	A	A
Ferrous Sulfate	A	A	A	A	A	A	A	A	A	A		A
Fish Oil	D	D	A	A	A	A	A	A	A	A		A
Fluoroboric Acid	A	C	A	A	B	A	A	A	C	A		A
Fluorine	D	D	D	D	D	D	D	D	D	D		D
Fluosilicic Acid	B	B	A	B	B	A	B	C	A	A		A
Formaldehyde (Formalin)	C	C	A	B	B	B	B	B	A	A		A
Formamide	A	A	A	A	A	A	A	A	D	A		A
Formic Acid	B	B	A	C	C	C	C	C	D	B		B
Freon 11	D	D	D	A	B	A	D	C	A	A		A
Freon 12	D	D	D	B	C	D	C	A	B	B		B
Freon 13	A	A	A	A	A	A	A	A	A	A		A
Freon 21	D	D	D	D	B	D	D	B	D	A		A
Freon 22	D	D	A	D	A	D	A	A	D	A		A
Freon 31	B	B	A	D	A	B	A	D	D	A		A
Freon 32	A	A	A	A	A	A	A	A	C	A		A
Freon 112	D	D	D	B	B	B	D	B	A	A		A
Freon 113	C	B	D	A	A	A	D	A	B	A		A
Freon 114	A	A	A	A	A	A	A	A	B	A		A
Freon 115	A	A	A	A	A	A	A	A	B	A		A
Freon 142b	A	A	A	A	A	A	A	A	D	A		A
Freon 152a	A	A	A	A	A	C	A	A	D	A		A
Freon 218	A	A	A	A	A	A	A	A	A	A		A
Freon C316	A	A	A	A	A	A	A	A	A	A		A
Freon C318	A	A	A	A	A	A	A	A	A	A		A
Freon 13B1	A	A	A	A	A	A	A	A	A	A		A
Freon 114B2	D	C	D	B	A	A	D	B	B	A		A
Freon 502	A	A	A	B	A	A	A	B	B	A		A
Freon TF	C	B	A	A	A	A	A	A	A	A		A
Freon T-WD602	C	B	A	A	B	B	B	B	A	A		A
Freon TMC	B	C	B	B	B	B	B	B	A	A		A
Freon T-P35	A	A	A	A	A	A	A	A	A	A		A
Freon TA	A	A	A	A	A	A	A	A	C	A		A
Freon TC	D	B	A	A	A	A	B	A	A	A		A
Freon MF	D	B	D	A	C	B	D	A	A	A		A
Freon BF	D	D	D	B	B	B	D	B	A	A		A
Fuel Oil	D	D	D	A	B	C	D	A	A	A		A

	NATURAL RUBBER		SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Fuel, ASTM A	D	D	D	A	A	C	D	A	A	A	A	A	A
Fuel, ASTM B	D	D	D	A	B	C	D	A	A	A	B	A	A
Fuel, ASTM C	D	D	D	B	C	D	D	B	A	A	B	C	B
Fumaric Acid	A	A	D	A	B	B	D	A	A	A	A	A	A
Furan	D	D	C	D	D	D	C	D	D	A	A	A	A
Furfural	D	D	B	D	C	B	B	D	D	A	A	A	A
Furfuryl Alcohol	D	D	C	D	C	C	C	D	D	A	A	A	A
Gallic Acid	A	A	B	B	B	B	B	B	B	A	A	A	A
Gasoline, Reg	D	D	D	A	A	C	D	A	A	A	B	A	A
Gasoline, Hi-Test	D	D	D	A	B	D	D	A	A	A	A	A	A
Gasoline, Lead Free	D	D	D	B	B	D	D	A	A	A	A	A	A
Gelatin	A	A	A	A	A	A	A	A	A	A	A	A	A
Gluconic Acid	D	D	C	C	C	B	C	C	A	A	A	A	A
Glucose	A	A	A	A	A	A	A	A	A	A	A	A	A
Glue	A	A	A	A	A	A	A	A	A	A	A	A	A
Glycerine (Glycerol)	A	A	A	A	A	A	A	A	A	A	A	A	A
Glycols	A	A	A	A	A	A	A	A	A	A	A	A	A
Grease	D	D	D	A	B	C	D	A	A	A	A	A	A
Green Sulfate Liquor	A	A	A	A	B	A	A	A	B	A	A	A	A
Halowax Oil	D	D	D	D	D	D	D	D	A	A	A	A	A
Heptachlor in Petroleum Solvents	D	D	D	B	B	D	D	B	A	A	A	A	A
Heptachlor in Petroleum Solvents, Water Spray	D	D	D	B	B	D	D	B	A	A	A	A	A
Heptanal (Heptaldehyde)	D	D	D	D	D	D	B	D	D	A	C	A	A
Heptane	D	D	D	A	A	B	D	A	A	A	A	A	A
Heptane Carboxylic Acid	D	D	C	C	B	B	C	A	A	A	A	A	A
Hexaldehyde	D	D	B	D	B	C	B	D	D	A	A	A	A
Hexane	D	D	D	A	A	C	D	A	A	A	A	A	A
Hexene	D	D	D	B	B	C	D	B	A	A	A	A	A
Hexanol (Hexyl Alcohol)	A	A	A	A	A	A	A	A	A	A	A	A	A
Hexylamine	B	C	B	B	B	C	B	B	D	A	B	A	A
Hexylene	D	D	D	A	B	D	C	A	A	B	B	A	A
Hexylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A	A
Hexyl Methyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A	A
Hi-Tri (Trichloroethylene)	D	D	D	C	D	D	D	C	A	B	C	B	B
Hydraulic Fluid (Petroleum)	D	D	D	A	B	B	D	A	A	A	A	A	A
Hydraulic Fluid (Phosphate Ester Base)	D	D	A	D	D	D	A	D	D	A	A	A	A
Hydraulic Fluid (Poly Alkylene Glycol Base)	B	B	A	A	A	A	A	A	A	A	A	A	A
Hydrobromic Acid	A	D	A	D	C	A	B	C	A	A	A	A	A
Hydrochloric Acid, 37%	A	B	A	C	C	A	B	D	A	A	A	A	A
Hydrochloric Acid, 50%	A	C	B	D	D	A	C	D	A	A	A	A	A
Hydrochloric Acid, 100%	B	C	C	D	D	B	C	D	C	A	A	A	A
Hydrocyanic Acid	B	C	A	B	C	A	B	C	B	A	A	A	A
Hydrofluoric Acid	B	D	B	D	C	A	B	D	B	A	A	A	A
Hydrofluosilic Acid	A	D	A	D	C	A	B	C	B	A	A	A	A
Hydrogen Gas	B	B	A	A	A	A	B	A	A	A	A	A	A
Hydrogen Peroxide, 3%	A	B	A	B	C	A	B	B	A	A	A	A	A
Hydrogen Peroxide, 10%	D	D	C	D	C	C	C	C	A	A	A	A	A

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	NATURAL RUBBER		SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Hydrogen Peroxide, 30%	D	D	D	D	D	D	C	D	A	A	A	A	A
Hydrogen Peroxide, 90%	D	D	D	D	D	D	C	D	B	B	B	B	B
Hydrogen Sulfide	D	D	A	D	A	B	A	C	A	A	A	A	A
Hydroquinone	B	B	B	D	D	C	B	C	D	D	A	A	A
Hypochlorous Acid	B	B	B	D	B	A	B	B	A	A	A	A	A
Ink Oil (Linseed Oil Base)	D	D	B	B	B	B	B	A	A	A	A	A	A
Insulating Oil	D	D	D	A	B	D	D	A	A	A	A	A	A
Iodine	D	D	D	D	D	C	D	D	C	A	A	A	A
Iron Acetate	D	D	A	D	D	D	B	D	D	A	A	A	A
Iron Hydroxide	C	C	A	B	A	B	B	B	C	A	A	A	A
Iron Salts	A	A	A	A	A	A	A	A	A	A	A	A	A
Iron Sulfate	A	A	A	A	A	A	A	A	A	A	A	A	A
Iron Sulfide	A	A	A	A	A	A	A	A	A	A	A	A	A
Isoamyl Acetate	D	D	A	D	D	D	B	D	D	A	C	A	A
Isoamyl Alcohol	A	A	A	A	A	A	A	A	A	A	A	A	B
Isoamyl Bromide	D	D	D	D	D	D	D	B	B	C	B	B	B
Isoamyl Butyrate	D	D	C	D	D	D	C	D	D	B	B	B	B
Isoamyl Chloride	D	D	C	D	D	D	D	D	B	B	C	B	B
Isoamyl Ether	D	D	D	D	D	D	D	D	D	A	A	A	A
Isoamyl Phthalate	D	D	A	D	D	D	B	D	C	A	C	A	A
Isobutane	D	D	D	A	A	D	D	A	A	A	A	A	A
Isobutanol (Isobutyl Alcohol)	A	A	A	A	A	A	A	A	A	A	A	A	A
Isobutyl Acetate	D	D	A	D	D	D	B	D	D	A	B	A	A
Isobutyl Aldehyde	C	D	B	D	D	D	B	D	D	A	B	A	A
Isobutyl Amine	B	C	B	D	D	C	B	D	D	A	B	A	A
Isobutyl Bromide	D	D	D	D	D	D	D	D	B	B	C	B	B
Isobutyl Carbinol	A	A	A	A	B	A	A	A	B	A	A	A	A
Isobutyl Chloride	D	D	D	D	D	D	D	D	B	B	C	B	B
Isobutylene	D	D	D	A	D	D	D	B	A	A	A	A	A
Isobutyl Ether	D	D	D	D	D	D	D	D	D	A	A	A	A
Isocyanates	C	D	B	D	D	C	B	C	C	B	B	B	B
Isooctane	D	D	D	A	A	B	D	A	A	A	A	A	A
Isopentane	D	D	D	A	A	D	D	A	A	A	B	A	B
Isopropyl Amine	B	C	A	B	A	C	B	B	D	A	A	A	A
Isopropyl Acetate	D	D	A	D	D	C	B	D	D	A	B	A	A
Isopropyl Alcohol (Iso-propanol)	A	A	A	A	A	A	B	A	B	B	A	B	B
Isopropyl Amine	B	D	B	C	A	C	B	C	D	A	A	A	A
Isopropyl Benzene	D	D	D	D	D	D	D	D	A	A	C	A	A
Isopropyl Chloride	D	D	D	D	D	D	D	B	B	C	B	B	B
Isopropyl Ether	D	D	D	C	D	C	D	C	D	A	A	A	A
Isopropyl Toluene	D	D	D	D	D	D	D	D	A	A	C	A	A
Jet Fuels (JP 1-JP 6)	D	D	D	A	B	C	D	A	A	A	A	A	A
Kerosene	D	D	D	A	B	C	D	A	A	A	A	A	A
Ketones	B	B	B	D	D	D	B	D	D	A	C	A	A
Lactic Acid	B	B	B	A	A	A	B	A	A	A	A	A	A
Lacquers	D	D	D	D	D	D	D	D	D	A	A	A	A
Lacquer Solvents	D	D	D	D	D	D	D	D	D	A	A	A	A
Lard	D	D	D	A	B	D	C	A	A	A	A	A	A
Lauryl Alcohol	A	A	A	A	A	A	A	A	B	A	A	A	A

	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Lead Acetate	D	D	A	C	C	D	B	B	C	A	A	A
Lead Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Lead Sulfamate	B	B	A	B	A	B	A	B	A	A	A	A
Lead Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Ligroin	D	D	D	A	A	D	D	A	A	A	A	A
Lime Water	D	D	A	C	A	A	A	C	A	A	A	A
Linseed Oil	D	D	A	A	B	B	B	A	A	A	A	A
Lindol (Tricresyl Phosphate)	D	D	A	D	D	B	A	D	A	A	A	A
Liquid Soap	A	A	A	A	A	A	A	A	A	A	A	A
Liquified Petroleum Gas	D	D	D	A	B	B	D	A	A	A	A	A
Lubricating Oils	D	D	D	A	B	C	D	A	A	A	A	A
Lye (Sodium Hydroxide)	A	B	A	B	A	A	A	B	D	A	A	A
Magnesium Acetate	D	D	A	D	D	D	B	D	D	A	A	A
Magnesium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Magnesium Chloride	A	A	A	A	A	A	B	A	A	A	A	A
Magnesium Hydrate	A	B	A	B	A	B	A	C	B	A	A	A
Magnesium Hydroxide	A	A	A	A	A	A	B	A	A	A	A	A
Magnesium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Magnesium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Malathion 50 in Aromatic Solvents	D	D	D	C	C	D	D	D	A	A	A	A
Malathion 50 in Aromatic Solvents, Water Spray	D	D	D	A	A	D	D	A	A	A	A	A
Maleic Acid	D	D	C	D	C	D	C	C	A	B	B	B
Maleic Anhydride	D	D	C	D	C	D	C	C	A	A	A	A
Malic Acid	A	B	D	B	C	B	D	C	A	A	A	A
Manganese Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Manganese Sulfide	C	A	A	A	B	A	B	C	A	A	A	A
Manganese Sulfite	C	A	A	A	B	A	B	C	A	A	A	A
Mercuric Chloride	B	B	B	C	C	B	C	A	A	A	A	A
Mercury	B	B	A	A	B	A	A	A	A	A	A	A
Methane	D	D	D	A	B	B	D	A	A	A	A	A
Methyl Acetate	C	D	B	D	D	D	B	D	D	A	A	A
Methyl Acrylate	C	D	B	D	C	D	B	D	D	A	A	A
Methacrylic Acid	D	D	B	D	B	C	B	D	B	A	A	A
Methyl Alcohol (Methanol)	A	A	A	A	A	A	A	B	C	A	A	A
Methyl Benzene (Toluene)	D	D	D	D	D	D	D	D	A	A	C	A
Methyl Bromide	D	D	B	B	D	D	B	C	A	A	A	A
Methyl Butyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A
Methyl Cellosolve	D	D	B	C	B	C	B	C	D	A	A	A
Methyl Chloride	D	D	D	C	D	D	D	C	B	B	C	C
Methyl Cyclohexane	D	D	D	D	D	D	D	D	C	B	B	B
Methylene Bromide	D	D	D	D	D	D	D	D	B	B	C	C
Methylene Chloride	D	D	D	D	D	D	D	D	B	A	C	B
Methyl Ethyl Ketone (MEK)	B	D	B	D	D	D	B	D	D	A	C	A
Methyl Formate	C	C	B	D	B	C	B	D	C	B	B	B
Methyl Hexanol	A	A	A	A	A	A	A	A	B	A	A	A
Methyl Hexyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A
Methyl Isobutyl Carbinol	B	C	A	B	B	B	A	C	B	A	A	A
Methyl Isobutyl Ketone (MIBK)	D	D	B	D	D	D	B	D	D	A	C	A

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	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Methyl Isopropyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A
Methyl Propyl Ether	D	D	D	D	D	D	D	D	D	A	C	A
Methyl Propyl Ketone	D	D	B	D	D	D	B	D	D	A	C	A
Methyl Methacrylate	D	D	D	D	D	D	B	D	D	D	C	B
Methyl Salicylate	D	D	B	D	D	D	B	D	C	B	B	B
Mineral Oil	D	D	D	A	B	B	D	A	A	A	A	A
Mineral Spirits	D	D	D	A	B	D	D	A	A	A	A	A
Monochlorobenzene	D	D	D	D	D	D	D	D	A	A	A	A
Monochlorodifluoromethane (Freon 22)	D	D	A	D	A	D	A	A	D	A	A	A
Monoethanolamine	B	C	B	C	B	B	B	C	D	A	A	A
Monomethylether	B	B	A	A	A	C	A	A	C	A	A	A
Monovinyl Acetate	D	D	B	D	D	C	C	C	A	A	A	A
Motor Oil	D	D	D	A	A	D	D	A	A	A	A	A
Muriatic Acid	(See HCL 37%)											
Naphtha	D	D	D	A	B	D	D	A	A	A	A	A
Napthalene	D	D	D	D	D	D	D	D	A	A	A	A
Napthenic Acid	D	D	D	C	D	D	D	C	A	A	A	A
Natural Gas	Contact HBD Tech.											
Neatsfoot Oil	D	D	B	A	B	B	B	A	A	A	A	A
Neu-Tri (Trichloroethylene)	D	D	D	C	D	D	D	C	A	B	C	B
Nickel Acetate	D	D	A	D	D	D	B	D	D	A	A	A
Nickel Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Nickel Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Nickel Plating Solution	A	D	B	B	C	B	B	B	A	A	A	A
Nickel Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Niter Cake	A	A	A	A	A	A	A	A	A	A	A	A
Nitric Acid, 10%	D	D	B	D	C	B	B	D	A	A	A	A
Nitric Acid, 20%	D	D	B	D	D	B	C	D	A	A	A	A
Nitric Acid, 30%	D	D	B	D	D	C	C	D	A	B	C	B
Nitric Acid, 30-70%	D	D	C	D	D	D	D	D	C	C	D	C
Nitric Acid, Red Fuming	D	D	D	D	D	D	D	D	D	D	D	D
Nitrobenzene	D	D	D	D	D	D	D	D	D	B	A	C
Nitrogen Gas	A	A	A	A	A	A	A	A	A	A	A	A
Nitrogen Tetraoxide	D	D	D	D	D	D	D	D	D	D	D	D
Nitromethane	B	B	B	D	C	C	B	C	D	A	A	A
Nitropropane	C	C	A	D	C	C	B	C	D	A	A	A
Nitrous Oxide	A	A	A	A	A	A	A	A	A	A	A	A
Octadecanoic Acid	D	D	B	A	B	D	C	A	C	A	A	A
Octane	D	D	D	A	B	D	D	A	A	B	A	B
Octanol (Octyl Alcohol)	B	B	B	B	A	B	B	A	A	A	A	A
Octyl Acetate	D	D	A	D	D	D	B	D	D	A	C	A
Octyl Amine	C	C	B	C	B	C	B	C	D	A	B	A
Octyl Carbinol	A	A	A	A	A	A	A	A	B	A	A	A
Octylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Oil, Petroleum	D	D	D	A	A	C	D	A	A	A	A	A
Oil, Astm #1	D	D	D	A	A	B	D	A	A	A	A	A
Oil, Astm #2	D	D	D	A	A	C	D	A	A	A	A	A
Oil, Astm #3	D	D	A	B	C	D	A	A	A	A	A	A
Oleic Acid	D	D	B	B	C	C	B	B	C	A	A	A

	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Oleum (Fuming Sulfuric Acid)	D	D	D	D	D	D	D	D	D	D	D	D
Olive Oil (Non F.D.A.)	D	D	B	A	B	B	B	B	A	A		A
Orthodichlorobenzene	D	D	D	D	D	D	D	D	A	B		B
Oxalic Acid	C	C	A	C	B	B	A	C	C	A	B	A
Oxygen, Cold	B	B	A	B	B	B	B	B	A	A		A
Oxygen, Hot	D	D	D	D	D	D	D	D	B	A		A
Ozone	D	C	B	D	B	A	A	A	A	A	A	A
Paint Thinner (Duco)	D	D	D	D	D	D	D	D	C	A		A
Palmitic Acid	D	D	B	A	B	B	B	B	A	B	A	B
Palm Oil	D	D	A	A	B	B	B	A	A	A		A
Papermaker's Alum	A	A	A	A	A	A	A	A	A	A	A	A
Paradichlorobenzene	D	D	D	D	D	D	D	D	A	B	D	B
Paraffin	D	D	D	A	A	D	D	A	A	D	A	D
Paraformaldehyde	D	D	B	B	B	B	B	B	C	A		A
Peanut Oil	D	D	C	A	B	B	D	A	A	A	A	A
Pentane	D	D	D	A	A	B	D	A	A	A	C	A
Perchloroethylene	D	D	D	D	D	D	D	C	A	B	C	B
Perchloric Acid	B	B	B	D	A	A	B	C	A	A		A
Petrolatum	D	D	D	A	A	C	D	A	A	A		A
Petroleum, Crude	D	D	D	A	B	D	D	A	A	A		A
Petroleum Ether (Naphtha)	D	D	D	A	A	D	D	A	A	A	A	A
Petroleum Oils	D	D	D	A	A	C	D	A	A	A		A
Phenol	C	C	B	D	C	C	C	C	A	A	A	A
Phenolsulfonic Acid	D	D	D	C	D	C	D	C	C	A	B	A
Phenyl Chloride	D	D	D	D	D	D	D	D	A	A	D	A
Phenylhydrazine	C	D	B	D	D	C	C	D	A	A		A
Phorone	D	D	A	D	D	D	B	D	C	A		A
Phosphate Esters	D	D	A	D	D	D	A	D	C	A		A
Phosphoric Acid, 10%	A	A	A	A	A	A	A	A	A	A	A	A
Phosphoric Acid, 10-85%	C	C	A	C	B	A	A	C	A	A	A	A
Phosphorous Trichloride	D	D	A	D	D	D	A	C	A	A		A
Pickling Solution	C	C	C	C	C	C	C	C	B	A		A
Picric Acid, Molten	C	C	C	C	C	B	C	C	C	D		D
Picric Acid, Water Soln.	A	C	A	B	B	A	B	B	C	A		A
Pinene	D	D	D	A	D	D	D	A	A	A	B	A
Pine Oil	D	D	D	C	C	D	D	C	B	A	B	A
Piperidine	D	D	D	D	D	D	D	D	D	B		B
Pitch	D	D	D	B	B	C	D	B	C	A		A
Plating Solutions, Chrome	D	D	A	B	B	C	A	B	A	A		A
Plating Solutions, Others	A	A	A	B	B	C	A	B	B	A	A	A
Polyvinyl Acetate Emulsion (PVA)	C	C	A	C	B	B	A	C	C	A		A
Polyethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Polypropylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Acetate	D	D	A	D	D	D	B	D	D	A	A	A
Potassium Bicarbonate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Bisulfate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Bisulfite	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Chloride	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Chromate	D	D	A	D	C	C	B	C	A	B	A	B

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	NATURAL RUBBER	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Potassium Cyanide	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Dichromate	D	D	A	D	B	C	B	C	A	A	A	A
Potassium Hydrate	A	B	A	B	B	B	A	B	C	A		A
Potassium Hydroxide	A	A	A	A	B	A	A	A	D	A	A	A
Potassium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Permanganate	D	D	A	D	D	D	A	D	A	A		A
Potassium Silicate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A
Producer Gas	D	D	D	A	B	B	D	A	A	A		A
Propane Gas	Use Butane-Propane Hose Only											
Propanediol	A	A	A	A	B	A	A	A	A	A	A	A
Propyl Acetate	D	D	B	D	D	D	B	D	D	A	B	A
Propyl Alcohol (Propanol)	A	A	A	A	A	A	A	A	A	A	A	A
Propyl Aldehyde	C	D	B	D	D	D	B	D	D	A		A
Propyl Chloride	D	D	C	D	C	D	C	C	B	B	C	B
Propylene Diamine	B	B	A	B	B	C	B	B	C	A	A	A
Propylene Dichloride	D	D	D	D	D	D	D	D	B	B		B
Propylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A
Pydraul Hydraulic Fluids	D	D	B	D	D	D	B	D	C	B		B
Pyranol	D	D	D	C	D	D	D	C	A	A		A
Pyridine	D	D	B	D	D	D	B	D	D	A		A
Pyrologinous Acid	C	C	B	C	B	B	B	C	A	A		A
Pyrrrole	C	B	B	D	D	D	C	D	C	A		A
Rape Seed Oil	D	D	A	B	B	B	B	A	A	B	A	B
Red Oil (Crude Oleic Acid)	D	D	B	B	B	B	B	B	A	A	A	A
Richfield A Weed Killer, 100%	D	D	D	D	D	D	D	D	C	B		B
Richfield B Weed Killer, 33%	D	D	B	B	B	C	D	C	C	B		B
Rosin Oil	D	D	D	A	A	B	D	A	A	A		A
Rotenone And Water	A	A	A	A	A	A	A	A	A	A	A	A
Rum	(F.D.A. Tube Required)											
Sal Ammoniac (Ammonium Chloride)	A	A	A	A	A	A	A	A	A	A	A	A
Salicylic Acid	A	B	A	D	D	A	A	C	A	A	A	A
Salt Water (Sea Water)	A	A	A	A	A	A	A	A	A	A	A	A
Sewage	C	C	C	A	B	A	B	A	A	A		A
Silicate of Soda (Sodium Silicate)	A	A	A	A	A	A	A	A	A	A	A	A
Silicate Esters	D	D	D	B	A	A	D	C	A	A		A
Silicone Greases	A	A	A	A	A	A	A	A	A	A	A	A
Silicone Oils	A	A	A	A	A	A	A	A	A	A	A	A
Silver Nitrate	A	A	A	A	A	A	A	A	A	A	A	A
Skelly Solvent	D	D	D	A	B	C	D	A	A	A		A
Skydrol Hydraulic Fluids	D	D	A	D	D	D	A	D	D	A	B	A
Soap Solutions	A	A	A	A	A	A	A	A	A	A	A	A
Soda Ash (Sodium Carbonate)	A	A	A	A	A	A	A	A	A	A	A	A
Soda, Caustic (Sodium Hydroxide)	A	B	A	B	A	A	A	B	D	A	B	A
Soda, Lime	A	B	A	B	B	B	A	B	C	A	A	A
Soda Niter (Sodium Nitrate)	A	A	A	A	A	A	A	A	A	A	A	A

	NATURAL RUBBER										CROSSLINKED POLYETHYLENE										
	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CPE	UHMW	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CPE	UHMW	
Sodium Acetate	D	D	A	D	D	D	B	D	D	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Aluminate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bicarbonate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bisulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Bisulfite	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Borate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Chloride	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Chromate	D	D	A	D	C	C	B	C	C	B	A	B									
Sodium Cyanide	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Dichromate	D	D	A	D	C	C	B	C	C	A	A	A									
Sodium Fluoride	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Hydroxide	A	B	A	B	A	A	A	B	D	A	A	A									
Sodium Hypochlorite	C	D	B	D	D	C	B	C	A	B	A	B									
Sodium Metaphosphate	A	A	A	A	B	B	A	A	A	A	A	A									
Sodium Nitrate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Nitrite	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Perborate	C	D	A	D	B	D	B	C	A	A											
Sodium Peroxide	B	B	A	B	B	B	A	B	A	B											
Sodium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Silicate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulfite	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Thiosulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Soybean Oil	D	D	B	B	B	B	B	B	A	A	A	A									
Stannic Chloride	A	A	B	A	A	A	A	A	A	A	A	A									
Stannic Sulfide	A	A	A	A	A	A	A	A	A	A	A	A									
Stannous Chloride	A	A	A	A	A	A	A	A	A	A	A	A									
Stannous Sulfide	A	A	A	A	A	A	A	A	A	A	A	A									
Steam, under 300°F	Steam Hose Only																				
Steam, over 300°F	Steam Hose Only																				
Stearic Acid	D	D	B	A	B	B	C	B	A	A											
Stoddards Solvent	D	D	D	A	C	D	D	A	A	A	A	A									
Styrene	D	D	D	D	D	D	D	D	B	A	C	A									
Sugar Solutions (Sucrose) (Non F.D.A.)	A	A	A	A	A	A	A	A	A	A	A	A									
Sulfamic Acid	C	C	A	B	B	B	A	C	A	A	A	A									
Sulfite Liquors	B	B	A	B	B	A	B	B	A	A											
Sulfonic Acid	D	D	D	D	C	C	D	C	D	B											
Sulfur (Molten)	D	D	B	C	C	C	C	B	A	D											
Sulfur Chloride	D	D	D	D	B	D	C	A	B												
Sulfur Dioxide	C	C	B	D	B	B	C	C	A	A											
Sulfur Hexafluoride	A	A	A	A	A	A	A	A	A	A											
Sulfur Trioxide	D	D	B	D	D	D	C	D	A	B											
Sulfuric Acid, 25%	B	B	B	B	A	A	B	C	A	A	A	A									
Sulfuric Acid, 25-50%	B	D	A	D	C	A	B	D	A	A	A	A									
Sulfuric Acid, 50-93%	D	D	C	D	C	B	B	D	A	A	C	A									
Sulfuric Acid, Fuming	D	D	D	D	D	D	D	D	D	D	D	D									
Sulfurous Acid	B	C	B	C	B	A	B	C	A	A	A	A									

These ratings are to be used only as a guide.

	NATURAL RUBBER										CROSSLINKED POLYETHYLENE										
	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CPE	UHMW	SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CPE	UHMW	
Tall Oil	D	D	D	A	B	B	D	B	A	A											
Tallow	D	D	D	A	A	D	D	A	A	A											
Tannic Acid	A	B	A	C	B	B	A	C	A	A	A	A									
Tar	D	D	D	B	B	D	D	B	A	D											
Tartaric Acid	A	A	B	B	B	A	A	A	B	A	A	A									
Terpineol	D	D	C	D	D	D	C	D	A	B	A	B									
Tertiary Butyl Alcohol	A	A	A	A	A	A	A	A	A	A	A	A									
Tetrachlorobenzene	D	D	D	D	D	D	D	D	B	B	D	B									
Tetrachloroethane	D	D	D	D	D	D	D	D	A	B											
Tetrachloroethylene	D	D	D	D	D	D	D	D	A	B	C	B									
Tetraethylene Glycol	A	A	A	A	A	A	A	A	A	A											
Tetrachloromethane	D	D	D	C	D	D	D	D	A	B											
Tetrachloronaphthalene	D	D	D	D	D	D	D	D	B	B											
Tetraethyl Lead	D	D	D	B	C	D	D	C	A	A											
Tetrahydrofuran (THF)	D	D	D	D	D	D	D	D	D	A	C	A									
Thionyl Chloride	D	D	D	D	D	D	D	D	B	A											
Tin Chloride	A	A	A	A	A	A	A	A	A	A	A	A									
Tin Tetrachloride	A	A	A	A	A	A	A	A	A	A	A	A									
Titanium Tetrachloride	D	D	D	B	C	C	C	C	A	A	C	A									
Toluene (Toluol)	D	D	D	D	D	D	D	D	A	A	C	A									
Toluene Diisocyanate (TDI)	C	C	A	C	D	D	A	C	B	A											
Toxaphene	D	D	D	B	B	D	D	B	A	A											
Transformer Oils (Petroleum Base)	D	D	D	A	B	B	D	A	A	A	A	A									
Transformer Oils (Chlorinated Phenyl Base Askerels)	D	D	D	D	D	D	D	D	A	B	A	B									
Transmission Fluids, A	D	D	D	B	C	D	D	A	A	A											
Transmission Fluids, B	D	D	D	C	D	D	D	C	A	A											
Tricetin	A	B	A	B	B	B	A	B	D	A											
Tributyl Amine	B	B	A	B	B	C	A	B	D	A	A	A									
Tributyl Phosphate	D	D	B	D	D	D	B	D	D	A	C	A									
Trichlorobenzene	D	D	D	D	D	D	D	D	B	B	D	B									
Trichloroethane	D	D	D	D	D	D	D	D	A	A	C	A									
Trichloroethylene	D	D	D	C	D	D	D	C	A	B	C	D									
Trichloropropane	D	D	D	D	D	D	D	D	A	A	C	A									
Tricresyl Phosphate (TCP)	D	D	A	D	D	D	B	D	B	A	A	A									
Triethanolamine (TEA)	B	B	A	B	A	A	B	B	D	A	A	A									
Triethylamine	B	B	B	B	A	A	B	B	B	A	A	A									
Triethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A									
Trinitrotoluene (TNT)	D	D	D	D	B	B	D	D	B	D											
Triphenyl Phosphate	D	D	A	D	C	C	B	D	C	A	A	A									
Trisodium Phosphate	A	A	A	A	A	A	A	A	A	A	A	A									
Tung Oil	D	D	C	A	B	B	D	A	A	A	A	A									
Turbine Oil	D	D	D	B	B	B	D	A	A	A											
Turpentine	D	D	D	B	B	D	D	A	A	A	B	A									
2, 4D With 10% Fuel Oil	D	D	D	A	A	D	D	A	A	A	A	A									
Ucon Hydrolube Oils	D	D	A	A	B	D	A	A	A	A	A	A									
Undecanol	A	A	A	A	A	A	A	A	B	A	A	A									
Unsymmetrical Dimethyl-Hydrazine (UDMH)	D	D	A	D	D	A	A	D	D	C		C									

	NATURAL RUBBER		SBR	BUTYL	NITRILE	NEOPRENE	HYPALON	EPDM	EPICHLOROHYDRIN	VITON	CROSSLINKED POLYETHYLENE	CPE	UHMW
Uran	B	C	B	B	B	A	B	B	C	A		A	
Urea	A	C	A	C	A	C	A	C	C	A	A	A	
Varnish	D	D	D	B	B	C	D	B	A	A		A	
Vegetable Oils	D	D	A	A	B	B	A	A	A	A	A	A	
Versilube	C	C	A	A	C	A	A	A	A	A	A	A	
Vinegar	A	C	A	C	A	A	B	C	B	A	A	A	
Vinyl Acetate	D	D	A	D	D	C	C	D	D	B	A	D	
Vinyl Benzene	D	D	D	D	D	D	D	D	A	B	C	B	
Vinyl Chloride (Monomer)	C	D	D	D	D	D	D	D	A	A		A	
Vinyl Ether	D	D	D	D	D	C	C	D	D	A		A	
Vinyl Toluene	D	D	D	D	D	D	D	D	A	B	C	B	
Vinyl Trichloride	D	D	D	D	D	D	D	D	A	A	C	A	
V.M.&P. Naptha	D	D	D	A	A	D	D	A	A	A	A	A	
Water, Fresh (Non F.D.A.)	A	A	A	A	A	A	A	A	A	A	A	A	
Water, Salt	A	A	A	B	A	A	A	A	C	A	A	A	
Whiskey, Wines	(F.D.A Tube Required)											2	
White Liquor	A	A	B	A	A	A	C	A	A	A		A	
White Oil	D	D	D	A	B	D	D	A	A	A	A	A	
Wood Alcohol (Methanol)	A	A	A	A	A	A	A	A	D	A	A	A	
Xylene (Xylol)	D	D	D	D	D	D	D	D	A	C	D	C	
Xylidine	D	D	D	D	D	D	D	D	C	B	C	B	
Zeolites	B	A	C	C	A	A	A	A	A	A	A	A	
Zinc Acetate	C	D	A	C	C	C	B	C	D	A		A	
Zinc Carbonate	A	A	A	A	A	A	A	A	A	A	A	A	
Zinc Chloride	A	A	A	A	A	A	B	B	A	A	D	A	
Zinc Chromate	A	C	A	A	A	C	A	A	A	B		B	
Zinc Sulfate	A	A	A	A	A	A	A	A	A	A	D	A	

These ratings are to be used only as a guide.

WARNING

HBD/Thermoid, Inc. recommends a hose product for its normal service as outlined in the price pages and our catalogs. Other applications should be referred to your respective marketing representative.

In any application there may be an inherent risk of bodily injury or property damage and user is responsible for proper use and implementation of adequate safety precautions. It is the responsibility of the buyer to advise user of proper instructions for safe use and/or precautions, proper coupling procedure and to warn user of consequences of failure to heed such instruction. Should a hose assembly fail during use with pressure, injurious and/or damaging chemicals, elevated temperature materials, explosives, or flammable materials, then serious bodily injury or destruction of property could result from impelled couplings, whipping hose, high pressure or high velocity discharge, chemical contact, high temperature materials, explosion, or fire.

In known high risk areas, it is recommended that hose inspections be performed at frequent intervals related to risk factor. Hose with obvious damage should be scrapped or tested before placing in use. These inspections should include tube condition, cover condition, leaking or slipped couplings, and proof test.

We have attempted to list some of the standard references below. This is a limited list, for specific details see standard itself.

1. Federal Coast Guard Regulation on Dock Hose—Federal Register 12-21-72, Vol. 37, No. 346, Part II, Section 154.500, 155.800, 156.170.
2. NFPA 196 Standard for Fire Hose.
3. NFPA 198 Care and Maintenance of Fire Hose.
4. NFPA 407 Care and Maintenance of Aircraft Refueling.
5. RMA—Storage, Care, Maintenance.
 - a. General
 - b. OS&D
 - c. LPG
 - d. Aircraft Ground Refueling
 - e. Motor Vehicle
 - f. Anhydrous Ammonia
 - g. Welding Hose
 - h. Steam
6. RMA—Industry Hose Specs.
 - a. Hydraulic Hose
 - b. RMA-CGA Welding
 - c. RMA-ANI Anhydrous Ammonia
 - d. RMA-LPG
 - e. OS&D
 - f. 300, 400, 600# Fire Hose
7. ASTM-296 Fire Hose Spec.

WARNING

Listing of hose products for conveying materials as mentioned in these charts is provided as a guide only. Materials not described or those outside of described conditions should be referred to your respective marketing or technical representative.

Blank spaces indicate unsatisfactory use.

Many materials listed here should be recognized by the buyer as hazardous due to their acidic, caustic, flammable or explosive characteristics, and proper precautions must be employed to assure safe use. It is the user's exclusive responsibility to develop appropriate techniques for the safe use of the hose product. Failure to take proper precautions could lead to serious bodily injury or property damage.

CAUTION

Product descriptions and specifications for products become dated. All product literature and information is subject to change, including the specifications outlined in this publication. For questions concerning any technical and/or product application information on the hose products contained in this catalog, please contact HBD/Thermoid, Inc. Customer Service Department at 800/543-8070 or log onto www.hbdthermoid.com.

DECIMAL & METRIC EQUIVALENTS

64ths	32nds	16ths	8ths	Decimal	MM
1/64				0.01562	0.397
	1/32			0.03125	0.794
3/64				0.04688	1.191
		1/16		0.06250	1.588
5/64				0.07812	1.864
	3/32			0.09375	2.381
7/64				0.10938	2.778
			1/8	0.12500	3.175
9/64				0.14062	3.572
	5/32			0.15625	3.968
11/64				0.17188	4.365
		3/16		0.18750	4.753
13/64				0.20312	5.159
	7/32			0.21875	5.556
15/64				0.23438	5.953
			1/4	0.25000	6.350
17/64				0.26562	6.747
	9/32			0.28125	7.144
19/64				0.29688	7.541
		5/16		0.31250	7.938
21/64				0.32812	8.334
	11/32			0.34375	8.731
23/64				0.35938	9.128
			3/8	0.37500	9.525
25/64				0.39062	9.922
	13/32			0.40625	10.309
27/64				0.42188	10.716
		7/16		0.43750	11.113
29/64				0.45312	11.509
	15/32			0.46875	11.908
31/64				0.48438	12.303
			1/2	0.50000	12.700

64ths	32nds	16ths	8ths	Decimal	MM
33/64				0.51582	13.097
	17/32			0.53125	13.494
35/64				0.54688	13.891
		9/16		0.56250	14.288
37/64				0.57812	14.684
	19/32			0.59375	15.081
39/64				0.60938	15.478
			5/8	0.62500	15.875
41/64				0.64062	16.272
	21/32			0.65625	16.669
43/64				0.67188	17.066
		11/16		0.68750	17.463
45/64				0.70312	17.859
	23/32			0.71875	18.256
47/64				0.73438	18.653
			3/4	0.75000	19.050
49/64				0.76562	19.447
	25/32			0.78125	19.844
51/64				0.79688	20.241
		13/16		0.81250	20.638
53/64				0.82812	21.034
	27/32			0.84375	21.431
55/64				0.85938	21.823
			7/8	0.87500	22.225
57/64				0.89062	22.622
	29/32			0.90625	23.019
59/64				0.92188	23.415
		15/16		0.93750	23.813
61/64				0.95312	24.209
	31/32			0.96875	24.605
63/64				0.98438	25.003
			1	1.00000	25.400

CONVERSION FACTORS

To Convert	Into	Multiply By
Atmospheres	cms of mercury	76.0
atmospheres	ft. of water (at 4°C)	33.90
atmospheres	ln of mercury (at 0°C)	29.92
atmospheres	kgs/sq cm	1.0333
atmospheres	kgs/sq meter	10.332
atmospheres	pounds/sq in	14.70
Bar	newtons/sq m	10 ⁵
bar	atmospheres	0.9869
bar	at (tech.)	1.0197
bar	psi	14.504
Barrels—Oil	gals/oil	42
BT Units	kg—calories	0.2520
BTUs	ft—lbs	777.9
BTUs	hp—hrs	3.927 x 10 ⁻⁴
BTUs	kg—meters	107.5
BTUs	kw—hrs	2.928 x 10 ⁻⁴
BTU/Min	ft—lb/sec	12.86
BTU/min	hp	0.02356
BTU/min	kw	0.01757
BTU/min	watts	17.57
Centimeters	inches	0.3937
cm	meters	0.01
cm	mm	10
Cms Mercury	atm	0.01316
cms mercury	ft water	0.4461
cms mercury	kgs/sq meter	136.0
cms mercury	lbs/sq ft	27.85
cms mercury	lbs/sq in	0.1934
Cms/Second	ft/min	1.969
cms/sec	ft/sec	0.03281
cms/sec	km/hr	0.036
cms/sec	meter/min	0.6
cms/sec	miles/hr	0.02237
cms/sec	miles/min	3.728 x 10 ⁻⁴
Cms/Sec/Sec	ft/sec/sec	0.03281
Cubic Cms	cu ft	3.531 x 10 ⁻⁵
cu cms	cu in	3.102 x 10 ⁻²
cu cms	cu meters	10 ⁶
cu cms	cu yards	1.308 x 10 ⁻⁶
cu cms	gals	2.642 x 10 ⁻⁴
cu cms	liters	10 ⁻³
cu cms	pints (liq)	2.113 x 10 ⁻³
cu cms	quarts (liq)	1.057 x 10 ⁻³

To Convert	Into	Multiply By
Cubic Feet	cubic cms	2.832 x 10 ⁴
cu ft	cu inches	1728
cu ft	cu meters	0.02832
cu ft	cu yards	0.03704
cu ft	gals	7.48052
cu ft	liters	28.32
cu ft	pints (liq)	59.84
cu ft	quarts (liq)	29.92
Cubic Ft/min	cu cms/sec	472.0
cu ft/min	gals/sec	0.1247
cu ft/min	liters/sec	0.4720
cu ft/min	lbs water/min	62.43
cu ft/sec	gals/min	448.831
Cubic Inches	cc	16.39
cu ins	cu ft	5.787 x 10 ⁻⁴
cu ins	cu meters	1.639 x 10 ⁻⁵
cu ins	cu yards	2.143 x 10 ⁻⁵
cu ins	gals	4.329 x 10 ⁻³
cu ins	liters	1.639 x 10 ⁻²
cu ins	pints (liq)	0.03463
cu ins	quarts (liq)	0.01732
Cubic Meters	cc	10 ⁴
cu M	cu ft	35.31
cu M	cu inches	61.023
cu M	cu yards	1.308
cu M	gals	264.2
cu M	liters	10 ³
cu M	pints (liq)	2113
cu M	quarts (liq)	1057
Cubic Yards	cu cms	7.646 x 10 ⁵
cu yds	cu ft	27
cu yds	cu ins	46,656
cu yds	cu meters	0.7645
cu yds	gals	202.0
Decimeters	meters	0.1
Degrees (Angle)	minutes	60
degs (angle)	radians	0.01745
degs (angle)	secs	3600

TECHNICAL REFERENCE — Industrial Hose Conversion Factors

CONVERSION FACTORS

To Convert	Into	Multiply By
Degrees/Sec degs/sec degs/sec	radians/sec	0.01745
	revs/min	0.1667
	revs.sec	0.002778
Feet ft ft ft	cms	30.48
	ins	12
	meters	0.3048
	yds	1/3
Ft of Water ft of w ft of w ft of w ft of w	atms	0.02850
	ins mercury	0.8826
	kgs/sq cm	0.03048
	lbs/sq ft	62.32
	lbs/sq in	0.4328
Feet/Min ft/min ft/min ft/min ft/min	cm/sec	0.5080
	ft/sec	0.01667
	kms/hr	0.01829
	meters/min	0.3048
	miles/hr	0.01136
Ft/Sec/Sec ft/sec/sec	cms/sec/sec	30.48
	Meters/sec/sec	0.3048
Ft-Pounds ft lbs ft lbs ft lbs ft lbs	BTUs	1.286×10^{-3}
	hp-hrs	5.050×10^{-7}
	kg-calories	3.241×10^{-4}
	kg-meters	0.1383
	kw-hrs	3.766×10^{-7}
Ft-lbs/Min ft-lbs/min ft-lbs/min ft-lbs/min ft-lbs/min	BTUs/min	7.717×10^{-2}
	ft-lbs/sec	0.01667
	hp	3.030×10^{-5}
	kg-calories/min	3.241×10^{-3}
	kws	2.260×10^{-5}
Ft-lbs/Sec ft-lbs/sec ft-lbs/sec ft-lbs/sec	BTUs/min	7.717×10^{-2}
	hp	1.818×10^{-3}
	kg-calories/min	1.945×10^{-2}
	kws	1.356×10^{-3}
Gallons gals gals gals gals gals gals	ccs	3785
	cu ft	0.1337
	cu ins	231
	cu meters	3.785×10^{-3}
	liters	3.785
	pints (liq)	8
	quarts (liq)	4
Gallons, Imp gallons, US	US gals	1.20095
	Imp gals	0.83267
Gallons/Min gal/min gal/min	cu ft/sec	2.225×10^{-3}
	liters/sec	0.06308
	cu ft/hr	8.0208

To Convert	Into	Multiply By
Horse-Power hp hp hp hp hp hp	BTUs/min	42.44
	ft-lbs/min	33,000
	ft-lbs/sec	550
	hp (metric)	1.014
	kg-calories/min	10.70
	kws	0.7457
	watts	745.7
Hp-Hours hp-hrs hp-hrs hp-hrs hp-hrs	BTUs	2547
	ft-lbs	1.98×10^8
	kg-calories	641.7
	kg-meters	2.737×10^5
	kw-hrs	0.7457
Inches	cms	2.540
Ins Mercury ins mercury ins mercury ins mercury ins mercury	atms	0.002458
	ft water	1.133
	kgs/sq cm	0.03453
	lbs/sq ft	70.73
	lbs/sq in	0.4912
Ins of Water ins of w ins of w ins of w ins of w	atms	0.002458
	ft mercury	0.07355
	kgs/sq cm	0.002540
	lbs/sq ft	5.202
	lbs/sq in	0.03613
Kilograms kgs kgs kgs	dynes	980,665
	lbs	2.205
	ton (short)	1.102×10^{-3}
	grams	1000
Kgs/Sq Cm kgs/sq cm kgs/sq cm kgs/sq cm kgs/sq cm	atms	0.9678
	ft water	32.81
	ins mercury	28.96
	lbs/sq ft	2048
	lbs/sq in	14.22
Kilometers kms kms kms	cms	10^5
	ft	3281
	meters	10^3
	miles	0.6214
Kms/Hr kms/hr kms/hr kms/hr kms/hr	cms/sec	27.78
	ft/min	54.68
	ft/sec	0.9113
	meters/min	16.87
	miles/hr	0.6214
Kms/Hr/Sec kms/hr/sec kms/hr/sec	cms/sec/sec	27.78
	ft/sec/sec	0.9113
	meters/sec/sec	0.2778

CONVERSION FACTORS

To Convert	Into	Multiply By
Kilowatts	BTUs/min	56.92
kws	ft-lbs/min	4.425 x 10 ⁴
kws	ft-lbs/sec	737.6
kws	hp	1.341
kws	kg-calories/min	14.34
kws	watts	10 ³
Kilowatts-Hrs	BTUs	3415
kw-hrs	ft-lbs	2.655 x 10 ⁶
kw-hrs	hp-hours	1.341
kw-hrs	kg-calories	860.5
kw-hrs	kg-meters	3.671 x 10 ⁵
Liters	ccs	103
liters	cu ft	0.03531
liters	cu ins	51.02
liters	cu meters	10 ⁻²
liters	gals	0.2642
liters	quarts (liq)	1.057
Liters/Min	gals/sec	4.403 x 10 ⁻³
Meters	cms	100
meters	ft	3.281
meters	ins	39.37
meters	kms	10 ³
meters	mms	10 ³
meters/min	cms/sec	1.667
meters/min	ft/min	3.281
meters/min	ft/sec	0.05468
meters/min	kms/hr	0.06
meters/min	miles/hr	0.03728
Meters/Sec	ft/min	196.8
meters/sec	ft/sec	3281
meters/sec	kms/hr	3.6
meters/sec	kms/min	0.06
meters/sec	miles/hr	2.237
meters/sec	miles/min	0.03728
Micron	meters	10 ⁻⁸
microns	in	39 x 10 ⁻⁶
Miles/Hr	cms/sec	44.70
miles/hr	ft/min	88
miles/hr	ft/sec	1.467
miles/hr	kms/hr	1.609
miles/hr	meters/min	26.82
Millimeters	cms	0.1
mms	ins	0.0397
Minutes (Angle)	radians	2.909 x 10 ⁻⁴

To Convert	Into	Multiply By
Newton	kgs	0.1020
Ounces	lbs	1.805
ozs	gram	28.349527
Ounces (Fluid)	cu in	1.805
ozs (fluid)	liters	0.02957
Pounds	ozs	16
lbs	tons (short)	0.005
lbs	newtons (N)	4.44
lbs	gram	453.5924
Lbs of Water	cu ft	0.01605
lbs of water	cu in	27.73
lbs of water	gals	0.1204
Lbs of Water/Min	cu ft/sec	2.679 x 10 ⁻⁴
Pounds/Cu Ft	lbs/cu in	5.787 x 10 ⁻⁴
Pounds/Cu In	lbs/cu ft	1728
Pounds/Sq In	atms	0.06804
lbs/sq in	ft water	2.311
lbs/sq in	in mercury	2.036
lbs/sq in	kgs/sq cm	0.07031
Radians	degrees	57.29578
Tons (Long)	kgs	1016
tons (long)	lbs	2240
tons (long)	tons (short)	1.12000
Tons (Short)	kgs	2000
tons (short)	kps	907.18486
tons (short)	tons (long)	0.89287
tons (short)	tons (metric)	0.90718
Watts	BTUs/min	0.05682
watts	ft-lbs/min	44.26
watts	ft-lbs/sec	0.7376
watts	hp	1.341 x 10 ⁻³
watts	kg-calories/min	0.01434
watts	kws	10
Watts/Hours	BTUs	3.415
watts/hours	ft-lbs	2655
watts/hours	hp-hrs	1.341 x 10 ⁻³
watts/hours	kg-calories	0.8605
watts/hours	kg-meters	367.1
watts/hours	kw-hrs	10 ⁻³

TECHNICAL REFERENCE — Industrial Hose Conversion Factors

TEMPERATURE CONVERSION

Look up reading in middle column (shaded). If in degrees Centigrade, read Farenheit equivalent in right-hand column; if in Farenheit degrees, read Centigrade equivalent in left-hand column. $^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$ $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times .5556$

C	^C F	F	C	^C F	F	C	^C F	F
-51	-60	-76	.6	33	91.4	22.2	72	161.6
-46	-50	-58	1.1	34	93.2	22.8	73	163.4
-40	-40	-40	1.7	35	95.0	23.3	74	165.2
-34	-30	-22	2.2	36	96.8	23.9	75	167.0
-29	-20	-4	2.8	37	98.6	24.4	76	168.8
-23	-10	14	3.3	38	100.4	25.0	77	170.6
-17.8	0	32	3.9	39	102.2	25.6	78	172.4
-17.2	1	33.8	4.4	40	104.0	26.1	79	174.2
-16.7	2	35.6	5.0	41	105.6	26.7	80	176.0
-16.1	3	37.4	5.6	42	107.6	27.2	81	177.8
-15.6	4	39.2	6.1	43	109.4	27.8	82	179.6
-15.0	5	41.0	6.7	44	111.2	28.3	83	181.4
-14.4	6	42.8	7.2	45	113.0	28.9	84	183.2
-13.9	7	44.6	7.8	46	114.8	29.4	85	185.0
-13.3	8	45.4	8.3	47	116.6	30.0	86	186.8
-12.8	9	48.2	8.9	48	118.4	30.6	87	188.6
-12.2	10	50.0	9.4	49	120.2	31.1	88	190.4
-11.7	11	51.8	10.0	50	122.0	31.7	89	192.2
-11.1	12	53.6	10.6	51	123.8	32.2	90	194.0
-10.6	13	55.4	11.1	52	125.6	32.8	91	195.8
-10.0	14	57.2	11.7	53	127.4	33.3	92	197.6
-9.4	15	59.0	12.2	54	129.2	33.9	93	199.4
-8.9	16	60.8	12.8	55	131.0	34.4	94	201.2
-8.3	17	62.6	13.3	56	132.8	35.0	95	203.0
-7.8	18	64.4	13.9	57	134.8	35.6	96	204.8
-7.2	19	66.2	14.4	58	136.4	36.1	97	206.6
-6.7	20	68.0	15.0	59	138.2	36.7	98	208.4
-6.1	21	69.8	15.6	60	140.0	37.2	99	210.2
-5.6	22	71.6	16.1	61	141.8	37.8	100	212.0
-5.0	23	73.4	16.7	62	143.6			
-4.4	24	75.2	17.2	63	145.4			
-3.9	25	77.0	17.8	64	147.2	43	110	230
-3.3	26	78.8	18.3	65	149.0	49	120	248
-2.8	27	80.6	18.9	66	150.8	54	130	266
-2.2	28	82.4	19.4	67	152.6	60	140	284
-1.7	29	84.2	20.0	68	154.4	66	150	302
-1.1	30	86.0	20.6	69	156.2	71	160	320
-6	31	87.7	21.1	70	158.0	77	170	338
0	32	89.6	21.7	71	159.8	82	180	356