

# PROPERTIES HDPE

## Legend

► This table is a valuable help in the choice of a material. The data listed here fall with in the normal range of product properties of dry material. However, they are not guaranteed and they should not be used to establish material specification limits nor used alone as the basis of design

PROPERTIES	ITEM		Method	Unit	HDPE
			ISO/(IEC)		
	Color		-	-	White/black
	Density		1183	g/cm <sup>3</sup>	0.95
	Water absorption	After 24/96h immersion in water of 23°C At saturation air 23°C, 50%RH At saturation in water of 23°C	62	mg	-
			62	%	0.01/-
			-	%	-
-			%	-	
Thermal Properties	Melting Temperature		-	°C	134
	Thermal conductivity at 23°C		-	W/(m·K)	-
	Coefficient of inear Thermal expansion	Average value btw23~60°C	-	10 <sup>-6</sup> /k	-
		Average value btw23~100°C	-	10 <sup>-6</sup> /k	150
	Temperature of Deflection under load	Method A : 1.8Mpa	75	°C	47
	Max. allowable Service temp. in air	For short periods	-	°C	-
		Continously : 5,000/20,000h	-	°C	-/-
	Min.service temperature		-	°C	-75
Flammability	UL94 (3/6mm thickness)	-	-	HB/HB	
Mechanical Properties at 23°C	Tension test	Tensile stress	527	MPa	23
		Tensile strainat break	527	%	>100
		Tensile modulus of elasticity	527	MPa	1000
	Compression test	Compressive stress at 1/2/5/% nominal strain	604	MPa	-/-/29
	Izod impact strength-Notched		180/2A	J/m	no break
	Rockwell hardness		2039-2	-	R60
Electrical Properties at 23°C	Electric strength		(60243)	kV/mm	-
	Volume resistivity		(60293)	Ω·cm	>10 <sup>14</sup>
	Surface resistivity		(60293)	Ω	>10 <sup>13</sup>
	Relative permittivity:	100Hz	(60250)	-	-
		1MHz	(60250)	-	-
	Dielectric dissipation factor:	100Hz	(60250)	-	-
		1MHz	(60250)	-	-
	Comparative tracking index(CTI)		(60112)	-	-