

O-ring storage

Seals stored for long periods may change their physical characteristics. Such changes may include hardening, softening, cracking and other forms of surface degeneration. This is due to one or more influences such as deformation, oxygen, light, ozone, heat, damp, oil or solvent. Basic instructions on storage, cleaning and preservation of elastomer seals are laid down in the DIN 7716 and ISO 2230 standards.

ISO 2230 contains advice on storing rubber items. The table below gives the maximums storage periods split into three groups.

Natural rubber base	Maximum storage period	Extension
BR, NR, IR, SBR, AU, EU	5 years	2 years
NBR, XNBR, HNBR, CO, ECO, ACM, CR, IIR, BIIR, CIIR	7 years	3 years
CM, CSM, EPM, EPDM, FPM, VMQ, PVMQ, FVMQ	10 years	5 years

Elastomer storage periods

When storing rubber products certain conditions must be met.

Heat

Storage temperature for elastomers should preferably be in the +5 °C to +25 °C range. Avoid direct contact with heat sources such as radiators or sunlight.

Moisture

Relative humidity should be below 70 % in the storage space. Extremely damp or dry conditions should be avoided.

Light

Elastomer seals should be protected against light when stored. Direct sunlight and strong artificial light with a UV content in particular are to be avoided. We recommend covering windows in storage spaces with red or orange materials.

Oxygen and ozone

If possible elastomers should be packaged or put in airtight containers to protect them against circulating air.

Deformation

Elastomers should be stored in untensioned condition if possible. Large O-rings can be stored coiled to save space.

Lagerung