CORK SEALING MATERIAL, TD1120

Seaco | group
The sealing company

CORK TD1120

TD 1120 sealing material is compounded with a special Nitrile (NBR) rubber. This product is suitable for most transformer oils and high distrotion flanges at application temperatures.

Material description & properties

- Temperature range -40°C to 125°C (-40°F to 257°F
- Stress range 2.5 to 15 MPa (360 to 2175 psi)
- Compressive strength exceeds exceeds 70 MPa (10.000 psi)

TD 1120 conforms to all present regulations for hazardous substances.

- Asbestos Free
- Heavy Metals (Pb, Cd,Hg and Cr (VI)) Free
- Polycyclic Aromatic Hydrocarbons (PAH) Free

• Density (kg /m³)[1]	850	• Tensile strength (MPa)[3]	2,0
• Hardness (shore A)[2]	65	• Elongation (%)[3]	90

[1]) *ASTM D297* [2]) *ASTM D2240* [3]) *ASTM D412, DieC*

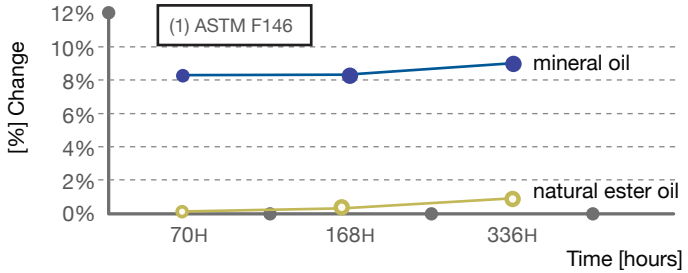
TD 1120 is suited for Mineral and silicone oil according to:

- ASTM 03455-Test Methods for Compatibility of Construction Materials with Electrical Insulating Oil of Petroleum origin.
- ASTM 05282-Test Methods for Compatibility of Construction Materials with Silicone Fluid used for Electrical Insulation.

Fluid contact

- Mineral oil suitable
- Natural ester oil suitable
- Silicone oil suitable
- Sf 6 gas acceptable

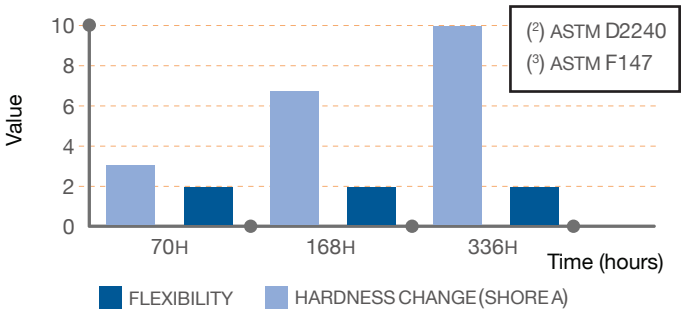
Oil ageing data [1]) volume change 336h @ 125°C



(*) properties change 504h @ 125°c:

Hardness change (SHORE A)	-2
Flexibility	3

Heat ageing data, air @ 250°C (2,3)



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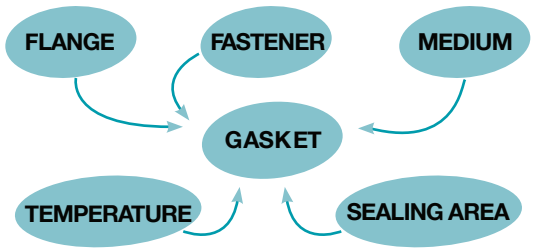
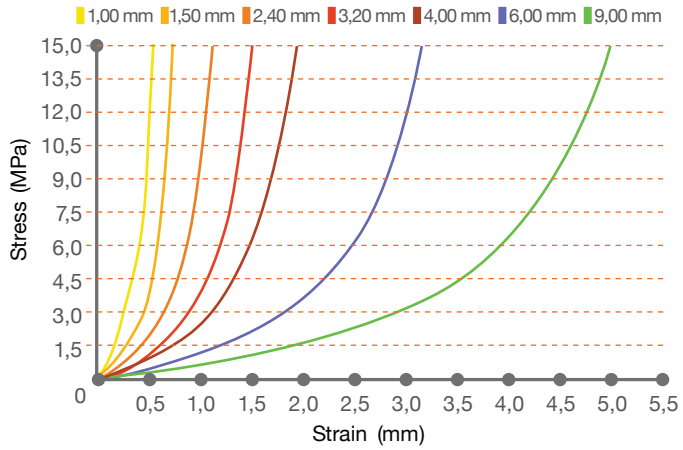


Gasket Design Guidelines

A gasket material suitability is defined by variety of application factors shown in the adjacent diagram. The common perception that temperature and chemical resistance must be assured are only part of the equation. Amorim Cork Composites systems approach ensures joint integrity by considering the multiple variables that are involved. Sealing Stress and System Distortion are key characteristics that influence each other. Sealing Stress is defined by the total fastener loading for a given gasket contact area. System Distortion is a function of the hardware manufacturing process and assembly procedure or loading. The selection of the gasket thickness depends on these two factors

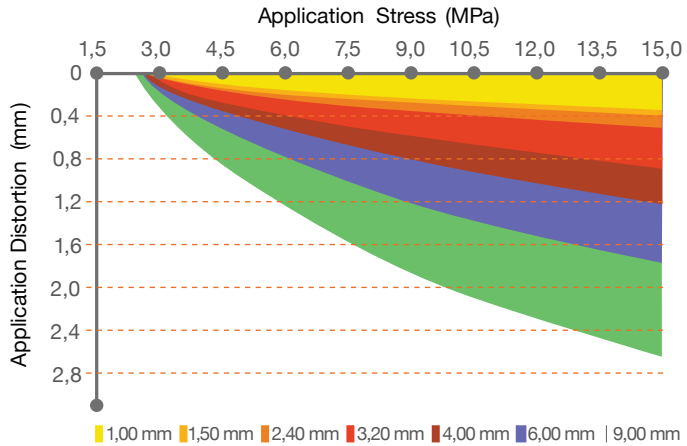


Sealing Stress

A Load Deflection (LD) curve is a Stress (MPa) vs. Strain (mm) curve. It is the load required to compress a material at a detined thickness a determined deflection.

It is very useful when making material selections to meet engineering requirements such as flange load or controlled compression applications.

If you require LD data at a different thickness, just ask us.



System Distortion

Conformability is the ability of a gasket material to conform to flange surface roughness and out-of-flatness. At a given sealing stress a corresponding maximum allowable flange distortion assures that a “positive seal” is guaranteed for a defined material thickness.
Intersecting the hardware distortion and the respective sealing stress a suggested material thickness is selected.
However it is always recommended to validate the material thickness in your system due to unexpected flange distortion behavior.

Waranty exclusion
In view of the variety of different installation and operation conditions as well as application and process engineering options, the information given in this datasheet can only provide approximate guidance and cannot be used as basis for warranty claims.