

MATERIAL DESCRIPTION & PROPERTIES

TS1237 sealing material is compounded with Styrene Butadiene (SBR) rubber.

This product has an outstanding low sealing stress and is suitable for most lubrication fluids at application temperatures. Good for IP/NEMA dust and water seals.

- **Temperature range** -35° to 110°C
(-31° to 230 °F)
- **Stress range** 2,0 to 12 MPa
(290 to 1740 psi)
- **Compressive Strength** ... exceeds 70 MPa
(10000 psi)

TS1237 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/m ³) ¹	650
Hardness (Shore A) ²	60
Tensile Strength (MPa) ³	1,2
Elongation (%) ³	40

(1) ASTM D297

(2) ASTM D2240

(3) ASTM D412, Die C

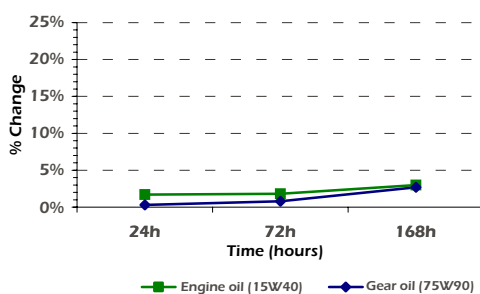
Fluid Contact

Unleaded Gasoline	Unsuitable
E-85	Unsuitable
B-100	Unsuitable
Diesel (low sulfur)	Unsuitable
Engine oil (15W40)	Suitable
Gear oil (75W90)	Suitable
MEG Coolant	Unsuitable
PEG Coolant	Unsuitable

RoHS Compliant

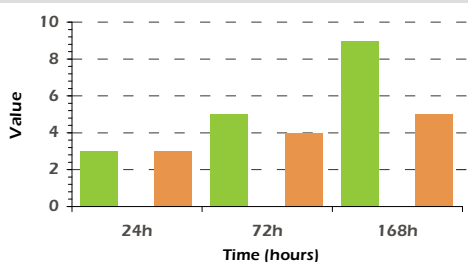


VOLUME CHANGE @ 100°C¹



(1) ASTM F146

HEAT AGEING DATA, AIR @ 100°C^{2&3}



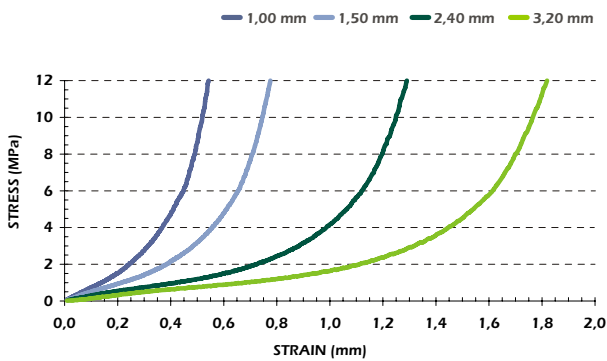
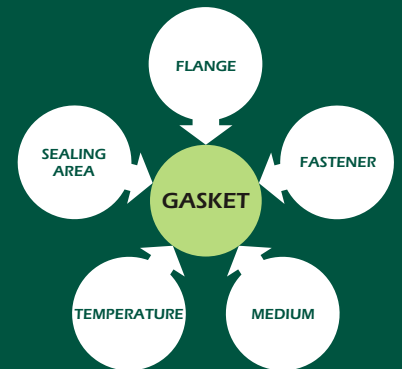
(2) ASTM D2240
(3) ASTM F147

Gasket Design Guidelines

A Gasket material suitability is defined by a 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.

Our 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.

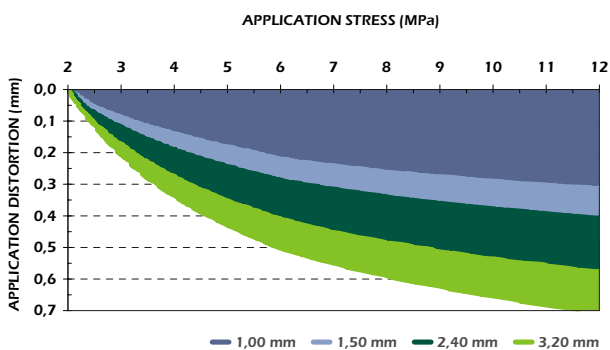


Sealing Stress

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

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