

Material Data Sheet

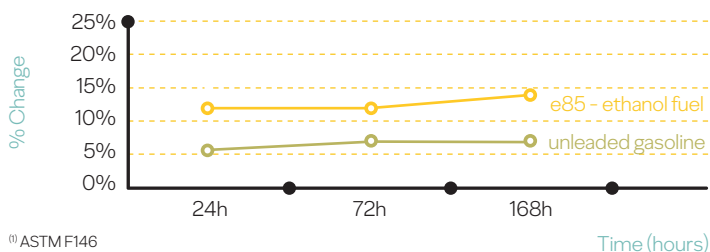
TS7110

Former Market Reference

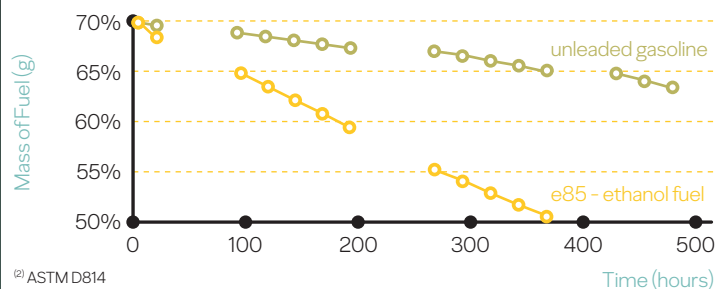
711G/NC711G/290/M613

Material Description & Properties

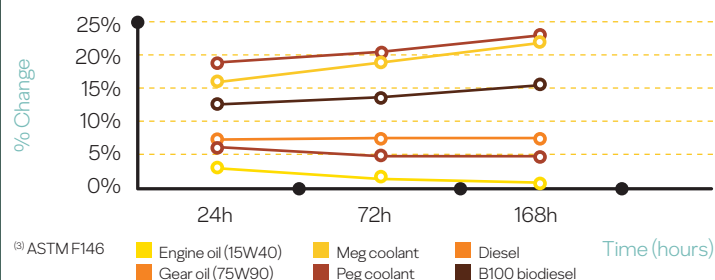
Volume change @ 21°C ⁽¹⁾



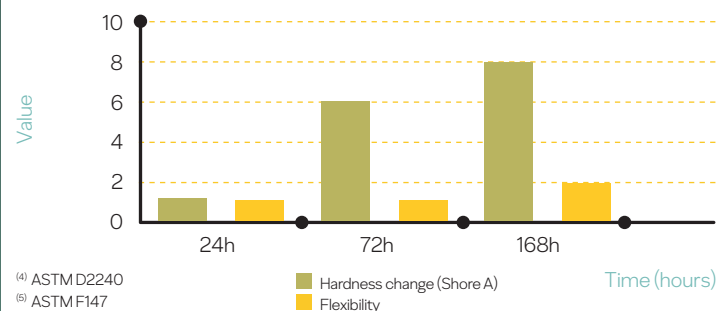
Fuel permeability comparisson @ 40°C ⁽²⁾



Volume change @ 100°C ⁽²⁾



Heat ageing data, air @ 125°C ^(3&4)



TS 7110 sealing material is compounded with Epichlorohydrin (ECO) rubber. This product has an outstanding performance for gasoline resistance but it also suited for most engine fluids and application.

Temperature range	-35°C to 135°C (-31°F to 275°F)
Stress range	4 to 20 MPa (580 to 2900 psi)
Compressive strength	exceeds 70 MPa (10000 psi)

TS 7110 conforms to all present regulations for hazardous substances.

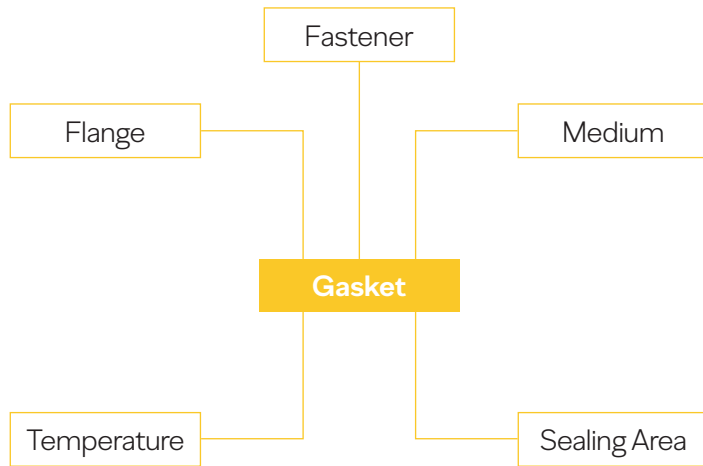
- Asbestos Free
- Heavy Metals (Pb, Cd, Hg and Cr (VI)) Free
- Polycyclic Aromatic Hydrocarbons (PAH) Free

Density (kg/m ³) ⁽¹⁾	1100*
Hardness (shore A) ⁽²⁾	70-85
Tensile strength (MPa) ⁽³⁾	4,5*
Compressibility at 400 psi (%) ⁽⁴⁾	15-30

- ⁽¹⁾ ASTM F1315
⁽²⁾ ASTM D2240
⁽³⁾ ASTM F152
⁽⁴⁾ ASTM F36
* Typical value

Fluid contact

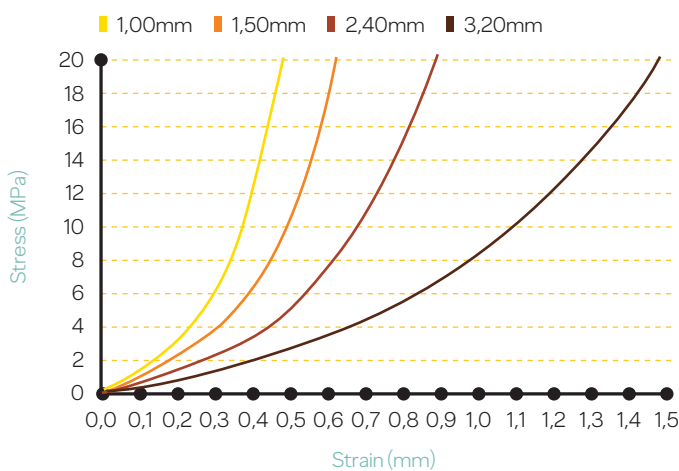
Unleaded gasoline	Suitable
E-85	Suitable
B-100	Suitable
Diesel (Low sulfur)	Suitable
Engine oil (15W40)	Suitable
Gear oil (75W90)	Suitable
Meg coolant	Suitable
Peg coolant	Suitable



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. 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.

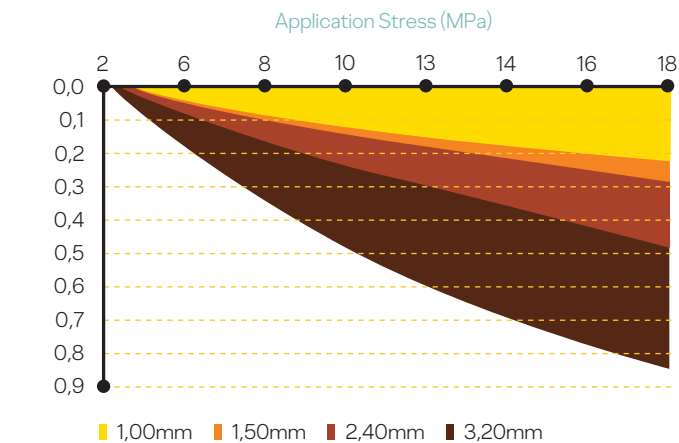


Sealing stress

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