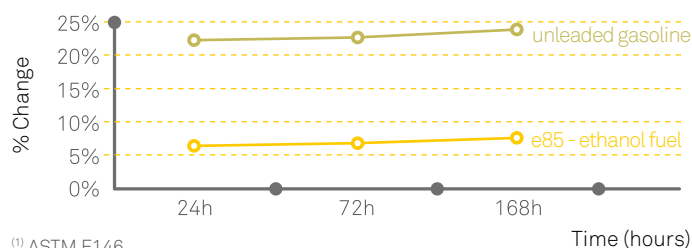


TS1400

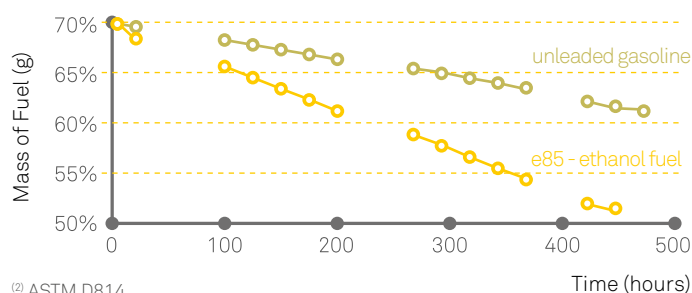
Material Data Sheet

VOLUME CHANGE @ 21°C ⁽¹⁾



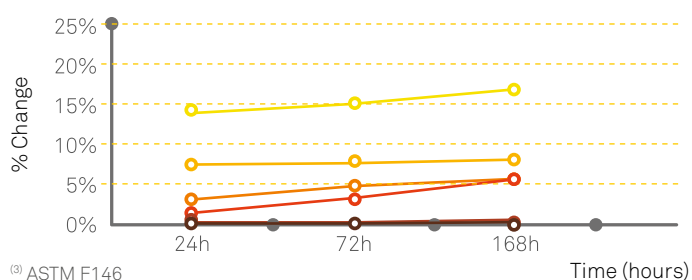
⁽¹⁾ ASTM F146

FUEL PERMEABILITY COMPARISSON @ 40°C ⁽²⁾

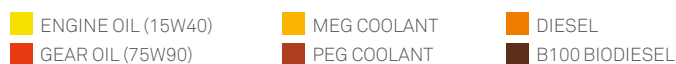


⁽²⁾ ASTM D814

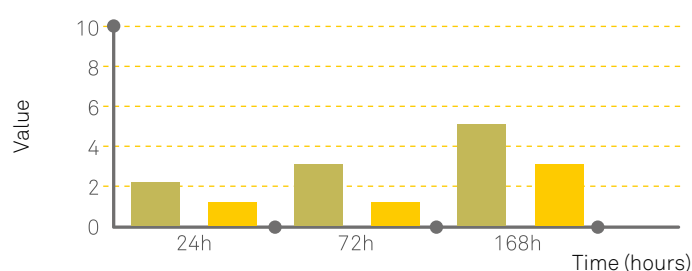
VOLUME CHANGE @ 100°C ⁽³⁾



⁽³⁾ ASTM F146

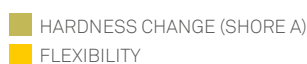


HEAT AGEING DATA, AIR @ 125°C ^(4&5)



⁽⁴⁾ ASTM D2240

⁽⁵⁾ ASTM F147



Material Description & Properties

TS 1400 sealing material is compounded with Nitrile (NBR) rubber. This product is suitable for all engine fluids and application service temperatures.

- **TEMPERATURE RANGE** -30°C to 125°C
(-22°F to 257°F)
- **STRESS RANGE** 6.5 to 30 MPa
(940 to 4350 psi)
- **COMPRESSIVE STRENGTH** exceeds 70 MPa
(10000 psi)

TS 1400 conforms to all present regulations for hazardous substances.

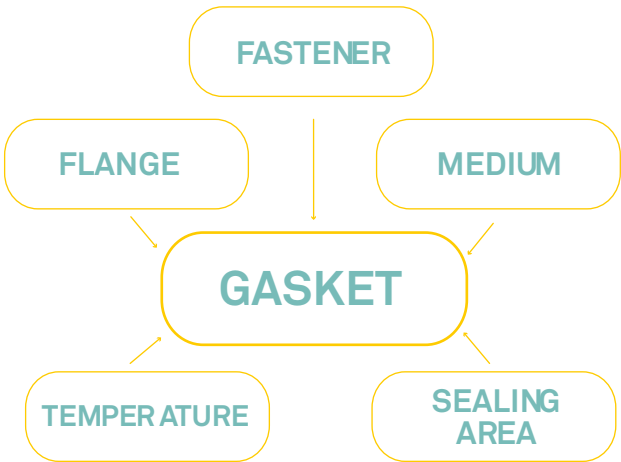
- Asbestos Free
- Heavy Metals (Pb, Cd, Hg and Cr (VI)) Free
- Polycyclic Aromatic Hydrocarbons (PAH) Free

DENSITY (kg /m ³) ¹	1100*
HARDNESS (SHORE A) ²	75-90
TENSILE STRENGTH (MPa) ³	> 3,5
COMPRESSIBILITY AT 400 PSI (%) ⁴	10-22
⁽¹⁾ ASTM F1315	
⁽²⁾ ASTM D2240	
⁽³⁾ ASTM F152	
⁽⁴⁾ ASTM F36	
* Typical value	

FLUID CONTACT

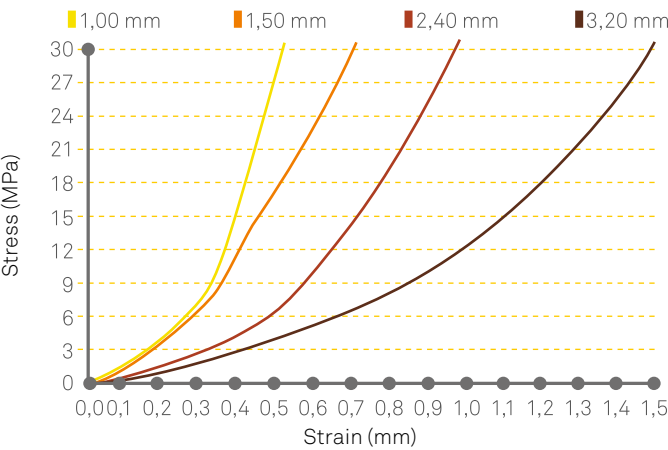
UNLEADED GASOLINE	SUITABLE
E-85	SUITABLE
B-100	SUITABLE
DIESEL (LOW SULFUR)	SUITABLE
ENGINE OIL (15W40)	SUITABLE
GEAR OIL (75W90)	SUITABLE
MEG COOLANT	SUITABLE
PEG COOLANT	SUITABLE

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. 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.

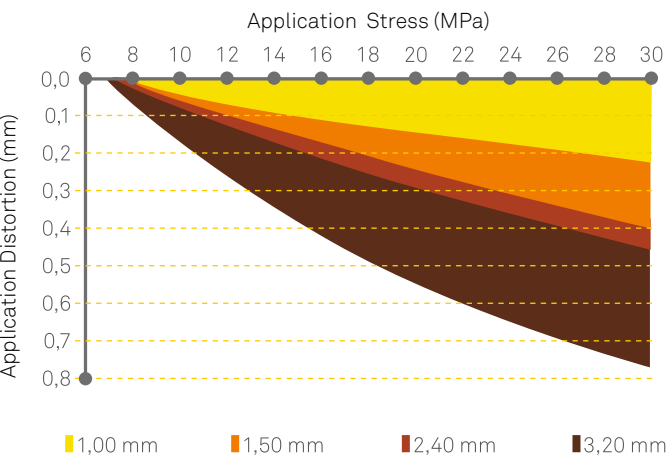


SEALING STRESS

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.

The information on this data sheet is based on laboratory test data we believe to be accurate, relevant and reliable. Please look upon these values as guides rather than absolutes. Since actual service conditions for a given application may vary substantially from standard laboratory conditions, specific recommendations or warranties relative to a specific end use cannot be made. The buyer is urged to conduct its own investigations and qualification tests to determine suitability for its intended application. Accurate Felt & Gasket Mfg. Co. shall not be liable for any damages arising out of the use of any of its guide specifications.