

Technical Datasheet

TS 1028

Certifications, Approvals, Material Description & Properties

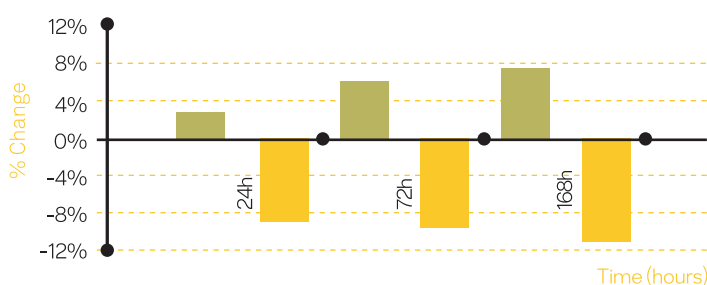
Certifications & approvals

NP4464 - Cork/Rubber materials for tightness joints used in gas appliances, valves, devices and gas installation.

DIN 3535-5 (DVGW CERTIFICATE N° NG 5121BS0223) - Rubber/Cork and rubber/cork synthetic fibre based gasket materials for use with gas valves, gas appliances and gas pipe work.

EN 30.1.1, PART 6.1.1.2 - Domestic Cooking Appliances Burning Gas, Durability of Sealing Materials.

Weight change (1&2)



(1) ISO 1817 IN IRM902 @80°C

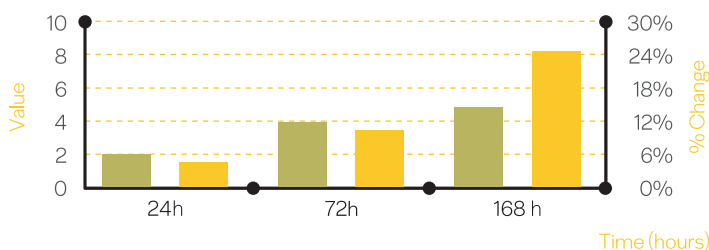
(2) ISO 1817 IN N-Pentane @23°C

After Drying 168h @ 40°C

IRM902 (%)

N-Pentane (%)

Heat ageing data @ 100°C (3&4)



(3) ISO 48

(4) ISO 37

Hardness change (points IRHD)

Tensile change (%)

TS 1028 sealing material is a medium loading cork rubber used for natural Gas and LPG applications.

Temperature range	Up to 125°C (Up to 257°F)
Stress range	4.5 to 20 MPa (652 to 2900 psi)
Compressive strength	exceeds 70 MPa (10000 psi)

TS 1028 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	700-900
Hardness (shore A) ²	65-75
Tensile strength (MPa) ³	>1.0
Compressibility at 400 psi (%) ⁴	25-40

(1) ASTM F1315

(2) ASTM D2240

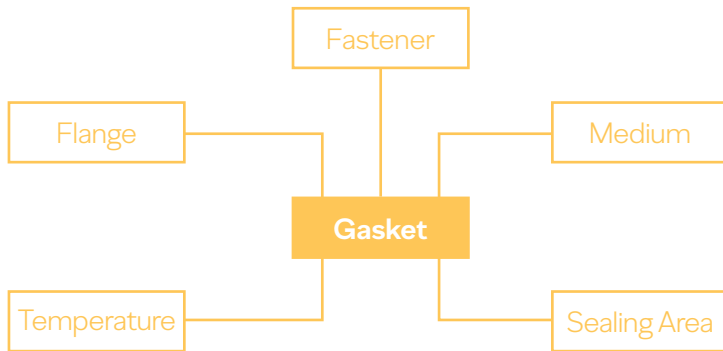
(3) ASTM F152

(4) ASTM F36

*Typical value

Fluid contact

Natural gas	Suitable
Liquid petroleum gas	Suitable



Design Guidelines

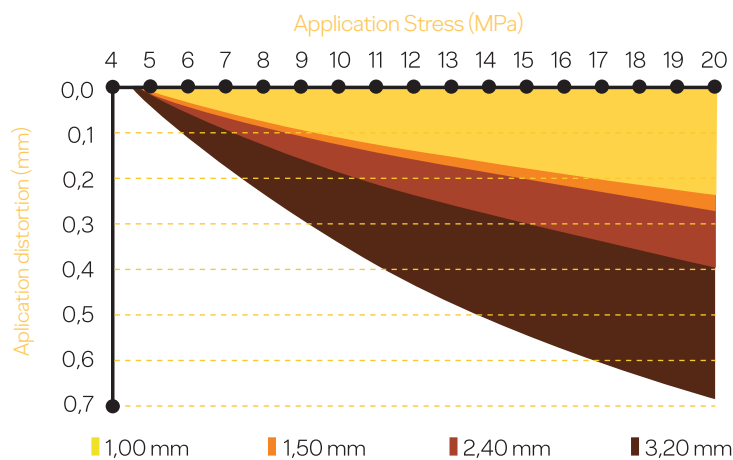
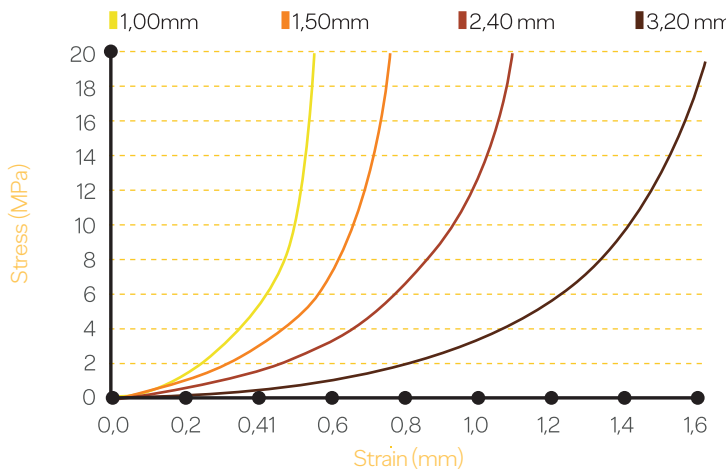
A Gasket material compatibility is defined by a variety of application factors shown in the adjacent diagram. The common perception that temperature and chemical resistance must be assured are only part of the equation.

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 load 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.