

GASKET MATERIALS

Natural Rubber

110°C Max Temp.

Good mechanical properties.
 Resistant to water.
 Fair to good resistance to acids and alkalis.
 Poor resistance to oils petrol.
 Poor resistance to weathering.

Butyl

150°C Max Temp.

Very good resistance to water, alkalis, many acids.
 Poor resistance to oils, petrol, and most solvents.

Nitrile

150°C Max Temp.

Very good resistance to water.
 Fair resistance to alkalis, acids.
 Excellent resistance to oils and petrol.

Polysulphide

66°C Max Temp.

Very good resistance to water.
 Good resistance to alkalis, fair resistance to acids.
 Excellent resistance to oils, petrol, aliphatic and aromatic hydrocarbon solvents.
 Poor mechanical Properties.

Neoprene

120°C Max Temp.

Good resistance to water and alkalis, fair resistance to acids.
 Good resistanceto non-aromatic petroleum, fatty oils, solvents (except aromatic, chlorinated or ketone types).
 Excellent mechanical Properties.

Acrylic

230°C Max Temp.

Good heat resistance.
 Poor low temperature properties.
 Poor resistance to water, alkalis and some acids.
 Poor resistance to steam and at high temperatures.
 Fair to good resistance to alkalis and acids.
 Good resistance to oils, petrol, aliphatic and aromatic hydrocarbon solvents.

Hypalon-Chlorosulphonated Polyethylene

230°C Max Temp.

Good Mechanical properties.
 Excellent resistance to oxidising chemicals, ozone weathering.
 Relatively good resistance to oils and greases.
 Poor resistance to oils, petrol, aliphatic and aromatic hydrocarbon solvents.

Viton/Kel-F/Fluoroelastomer

230°C Max Temp.

Good mechanical properties.
 Excellent resistance to ozone weathering.
 Can be used at high temperatures with many fuels, lubricants, hydraulic fluids, solvents.

The above data is obtained through our own laboratory testing on slabs and buttons and als D2137

GASKET MATERIALS

Asbestos Derivatives	600°C Max Temp.
Large number of composites and combinations- Asbestos is not really acceptable for use in UK for health reasons.	
Cork Composites	120°C Max Temp.
Low cost. Compressible allowing substantial deflection with negligible side flow. Will conform to irregular surfaces. High resistance to oils. Good resistance to water and many chemicals. Should not be used with inorganic acids and alkalis.	
Cork Rubber	150°C Max Temp.
Low Cost. Defined compressibility. Good fatigue resistance. Chemical resistance dependent on rubber used.	
PTFE/Teflon	250°C Max Temp.
Excellent resistance to most chemicals and solvents. Good heat resistance. Exceptional low temperature properties. Low compressibility. Low resilience tends to creep under stress.	
Filled PTFE/Teflon	Up to 250°C Max Temp.
Improved mechanical properties - however filling material can impair chemical properties.	
PTFE/Teflon composites (lined)	Up to 250°C Max Temp.
Chemical properties comparable with virgin PTFE. Inner gasket material providing improved resilience and deformability.	
Polythene	70°C Max Temp.
Resists most solvents- Poor heat properties	
Neoprene Impregnated wood fibre	80°C Max Temp.
No porous – good for glycol, oil, and petrol	
SBR bonded Cotton	105°C Max Temp.
Good water resistance	
Nitrile Rubber - Cellulose fibre	105°C Max Temp.
Oil resistant up to reasonably high temperatures	
Inorganic Fibre	105°C Max Temp.
Excellent heat properties - poor mechanical properties	

The above data is obtained through our own laboratory testing on slabs and buttons and als D2137

GASKET MATERIALS

Graphite /Carbon Fibre	1000°C Max Temp.
Excellent heat properties - Excellent chemical and mechanical properties based on product selected.	
Felt-Pure	-
Resilient, compressible, and strong but not impermeable. Resists medium strength mineral acids and dilute mineral solutions if not intermittently dried. Resists oils greases, waxes, solvents. Damaged by alkalis.	
Felt-PTFE Impregnated	130°C Max Temp.
Good chemical and heat resistance	
Lead	260°C Max Temp.
Good general chemical resistance. Best conformity of all metals	
Tin	260°C Max Temp.
Good resistance to neutral chemicals. Attacked by acids and alkalis	
Aluminium	430°C Max Temp.
High corrosion resistance. Slightly attacked by strong acids and alkalis	
Copper & Brass	430°C Max Temp.
Good corrosion resistance at moderate temperatures	
Nickel	760°C Max Temp.
High corrosion resistance	
Monel	650°C Max Temp.
High corrosion resistance. Good for use with wide range of acids and alkalis.	
Inconel	1000°C Max Temp.
Excellent heat and oxidising resistance.	
Stainless Steel	600°C Max Temp.
High corrosion resistance depending on grade used.	
Leather	100°C Max Temp.
Low cost. Limited chemical and heat resistance. Not recommended against pressurised steam, acid or alkali solutions.	

The above data is obtained through our own laboratory testing on slabs and buttons and als D2137