Product Data Sheet

Perlast® G75TX

Black multi-purpose ultra-high temperature perfluoroelastomer

PERLAST®

Description

Perlast® G75TX is the ultimate 'next generation' perfluoroelastomer, offering a combination of excellent chemical resistance and ultra-high temperature stability, simultaneously extending the operating limits in all aspects.

Perlast® G75TX has been formulated to provide increased resistance to a broad range of chemicals by carefully controlling the molecular architecture. In addition, this perfluoroelastomer has low permeability and as a result, it is less prone to swelling, leading to extended in-service performance in, for example, valves, pumps and mechanical seals.

Perlast® G75TX is suitable for both dynamic and static applications and can be fully moulded into O-rings (any size up to 2.5m/8ft external diameter) and custom shapes.

Key Attributes

- Very high temperature resistance
- Ultra low compression set
- Excellent chemical resistance to a broad range of chemicals
- Exceptional acid and amine resistance
- Superior mechanical properties
- Long-term sealing efficiency at high temperatures
- Extremely low out-gassing properties
- Good steam resistance (ASME BPE 2000)

Typical Applications

Aerospace –	Inter-stage seal assemblies (static O-rings)
Chemical Processing –	Pumps Valves Mechanical seals
Diesel –	Pre-heat chambers Exhaust valve seats
Semiconductor –	Gas abatement systems (static) High temperature environments
Oil & Gas –	High temperature down-hole environments Electrical bulkhead feed-throughs

Other materials in this range

Perlast® G75B (black high temperature up to +325°C)
Perlast® G75H (white high temperature up to +320°C)

Note: Perfluoroelastomers are not suitable for use with molten alkali metals.

Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FFKM	FFPM	
Colour			Black
Hardness: (°IRHD) (Shore A)	D1415 D2240	ISO48 ISO7619	75 75
Tensile Strength (MPa)	D412	ISO37	14.0
Elongation at break (%)	D412	ISO37	130
100% Modulus (MPa)	D412	ISO37	11.0
Compression Set: 72 hrs @ 200°C (392°F)	D395	ISO815	8.0
Minimum Operating Temperature			-15°C (+5°F)
Maximum Operating Temperature			+327°C (+621°F)
Coefficient of Thermal Expansion ($°C^{-1}$)			$3.8x10^{-4}$

SPECIAL NOTE: *This information is to the best of our knowledge accurate and reliable. However, PPE Ltd makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use, especially in applications where their failure may result in injury and/or damage. It should also be noted that all elastomeric parts have a finite life, therefore a regular program of inspection and replacement is strongly recommended. The material properties above should not to be used for specification purposes.*