Product Data Sheet

Perlast® G75B

Black multi-purpose high temperature perfluoroelastomer compound

PERLAST®

Description

Perlast® G75B offers a unique blend of excellent chemical resistance, mechanical properties and high temperature stability, simultaneously extending the operating limits in all three aspects.

Perlast® G75B has been specially formulated to provide increased acid resistance by eliminating fillers that are prone to acid attack and optimising the polymer structure. 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.

A high modulus makes Perlast® G75B resistant to extrusion and ideal for use in medium-high pressure applications. In addition, the low cumulative compression set provides a high mean-time between maintenance cycles in hot chemically aggressive environments.

Perlast® G75B is suitable for both dynamic and static applications and can be fully moulded into O-rings (any size up to 2m/6.5ft internal diameter) and custom shapes.

Key Attributes

- Excellent chemical resistance to a wide range of chemicals
- Exceptional acid and amine resistance
- Superior mechanical properties
- Long-term sealing efficiency at high temperature
- Extremely low out-gassing properties
- Good steam resistance (ASME BPE 2000)
- Less than 2% swell in MIL-L-23699C jet oil after 336 hours at 200°C

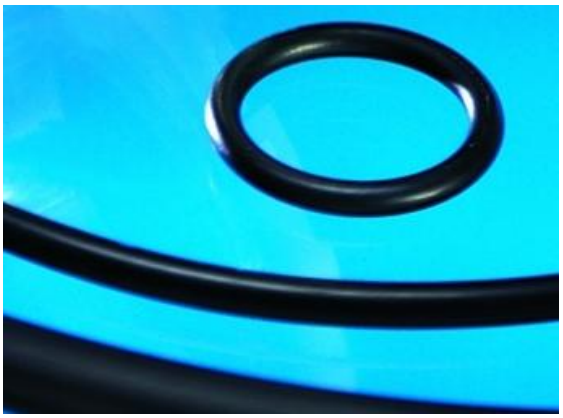
Typical Applications

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® G75H (white high temperature up to +320°C/+608°F)
Perlast® G75TX (black high temperature up to +327°C/+620°F)
Perlast® G75M (black multi-purpose up to +260°C/+500°F)

*For extended operation at high temperature please consult the PPE technical team.



Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FFKM	FFPM	
Colour			Black
Hardness: (°IRHD) (Shore A)	D1415 D2240	ISO48 ISO7619	78 79
Tensile Strength (MPa)	D412	ISO37	19.2
Elongation at break (%)	D412	ISO37	160
100% Modulus (MPa)	D412	ISO37	12.0
Compression Set: 72 hrs @ 200°C (392°F)	D395	ISO815	18.0
Minimum Operating Temperature			-15°C (+5°F)
Maximum Operating Temperature*			+325°C (+617°F)
Coefficient of Thermal Expansion ($°C^{-1}$)			$4.0x10^{-4}$

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.*