

Perlast® G75B

Perfluoroelastomer

Precision Polymer Engineering Ltd.

Message:

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
- Chemical Processing
- Diesel
- Semiconductor
- Oil & Gas

General Information			
Features	The degassing effect is low to no		
	Low compressive deformability		
	Good chemical resistance		
	Heat resistance, high		
	acid resistance		
	Steam resistance		
	Thermal stability, good		
	Low or no water absorption		
Uses	Pump parts		
	Valve/valve components		
	Seals		
Appearance	Black		
Hardness	Nominal Value	Test Method	
Durometer Hardness (Shore A)	79	ASTM D2240	
IRHD Hardness	78	ASTM D1415, ISO 48	
Elastomers	Nominal Value	Unit	Test Method

Tensile Stress (100% Strain)	12.0	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	19.2	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	160	%	ASTM D412, ISO 37
Compression Set (200°C, 72 hr)	18	%	ASTM D395, ISO 815
Thermal	Nominal Value	Unit	
Maximum Operating Temperature	325	°C	
Coefficient of Linear Thermal Expansion	4.00E-4		
Additional Information			

Minimum Operating Temperature: -15°C (+5°F)

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