Perlast® ICE G75LT

Perfluoroelastomer

Precision Polymer Engineering Ltd.

Message:

Perlast® ICE G75LT offers a unique combination of excellent chemical resistance and low temperature performance. This perflouroelastomer material has been specifically developed to perform under extreme conditions, in temperatures as low as -46°C (-51°F).
Perlast® ICE G75LT 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 valves, pumps and mechanical seals.
Ideal for use in exploration and completion applications and equipment operating or stored in sub-zero conditions. Perlast® ICE G75LT is suitable for both dynamic and static applications and can be fully moulded into O-rings (any size up to 2.5m/8ft internal diameter) and custom shapes.
Key Attributes
Excellent low-temperature sealing capability
Good high temperature resistance
Low compression set
Excellent chemical resistance to a broad range of chemicals
Exceptional acid and amine resistance
Good mechanical properties
Typical Applications
Aerospace - static O-rings
Chemical processing - pumps & valves
Mechanical seals
Downstream refinery & petrochem equipment
Cryogenic equipment
Gas storage & transportation
Oil & Gas - subsea equipment
Completion tools
Drilling tools (deepwater)
Pipe connectors
Pumps, valves & compressors

General Information	
Features	Low compressive deformability
	Low temperature resistance
	Good chemical resistance
	Heat resistance, high
	acid resistance
Uses	Pump parts
	Valve/valve components
	Pipe seal
	Piping system
	Aerospace applications
	Connector
	Seals
	Oil/Gas Supplies
Appearance	Black

Hardness	Nominal Value		Test Method
Durometer Hardness (Shore A)	72		ASTM D2240, ISO 7619
IRHD Hardness	75		ASTM D1415, ISO 48
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	7.20	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	12.0	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	150	%	ASTM D412, ISO 37
Compression Set			ASTM D395, ISO 815
200°C, 70 hr	20	%	ASTM D395, ISO 815
200°C, 672 hr	45	%	ASTM D395, ISO 815
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	-33.0	°C	ASTM D3418
Maximum Operating Temperature	250	°C	
Coefficient of Linear Thermal Expansion	3.40E-4		
Low Temperature Resistance - TR10	-32	°C	ASTM D1329
Additional Information	**Nominal Value**	**Unit**	**Test Method**

Minimum Operating Temperature: -46°C (-51°F)

Recommended distributors for this material

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