

Precision Polymer V80D

Fluoroelastomer

Precision Polymer Engineering Ltd.

Message:

V80D is a fluoroelastomer (FKM) material developed to offer superior long-term low compression set and heat ageing properties whilst operating at high temperature.

V80D has been engineered to retain its mechanical properties longer than conventional FKM grades combined with excellent chemical resistance to petroleum, silicone, air and diester-based fluids.

Meets Aerospace Specifications DTD5612A & DTD5543B Grade 80.

Available in any sized O-ring (fully moulded up to 2.5m/8ft internal diameter) and custom designed components.

Key Attributes

Excellent long-term sealing performance

Superior heat ageing properties for extended service life

Superior chemical resistance especially in heavy fuel oil (HFO) at temperatures up to 150°C (302°F).

Typical Applications

Mechanical seals

Chemical pumps and valves

Diesel engines: Injection systems, Cylinder seals, Exhaust valve seals up to 180°C (356°F)

Couplings and quick connectors

General Information			
Features	Low compressive deformability Good heat aging resistance Good chemical resistance Heat resistance, high Oil resistance		
Hardness	Nominal Value	Test Method	
IRHD Hardness	78	ASTM D1415, ISO 48	
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	15.0	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	180	%	ASTM D412, ISO 37
Compression Set			
200°C, 24 hr	12	%	ASTM D395B
200°C, 24 hr ¹	12	%	ISO 815
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (250°C, 72 hr)	-15	%	ASTM D412, ISO 37
Change in Ultimate Elongation in Air (250°C, 72 hr)	-10	%	ASTM D412, ISO 37
Change in IRHD Hardness in Air (250°C, 72 hr)	1.0		ASTM D573, ISO 188
Thermal	Nominal Value	Unit	
Maximum Operating Temperature	225	°C	
Additional Information			
Minimum Operating Temperature: -20°C (-4°F)			

NOTE

1. Type B

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