

Perlast® G92E

ED resistant perfluoroelastomer for the oilfield industry

PERLAST®

Description

Understanding the demanding challenges in the oil and gas exploration and extraction industry, PPE offers the most technically advanced range of elastomer materials to meet the needs of sealing applications operating in the most severe conditions.

Perlast® G92E is part of the EnDura® range of elite materials which have been specifically formulated for Explosive Decompression (ED) resistance in downhole, surface and subsea oilfield equipment.

Perlast® G92E offers exceptional chemical compatibility, combined with excellent thermal and ED resistance.

Key Attributes

- ▶ Excellent Explosive Decompression resistance.
- ▶ Tested to **NACE TM0297** standard.
- ▶ Tested up to 28 MPa (4000psi) in nitrogen at 150°C (302°F) for 120 hours, and decompressed over 20 minutes: excellent results with no cracks or blistering.
- ▶ Exceptional resistance to methanol, sour gas, hot water, steam and oils, beyond that of conventional TFE/P (Aflas®) and FKM polymers.
- ▶ Excellent compression set provides long-term sealing capability and improved leak prevention thus minimizing equipment failure.

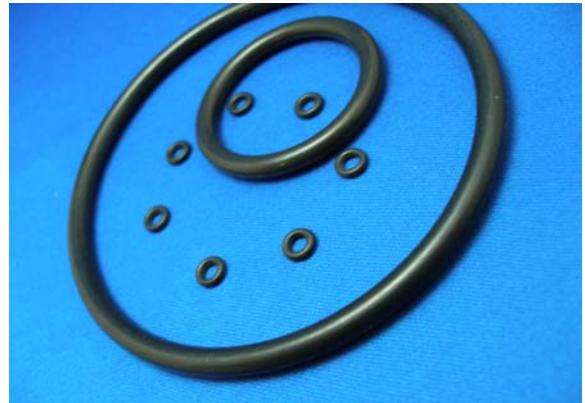
Typical Applications

High pressure environments
Harsh chemical exposure
Exploration and drilling equipment
Completion equipment
Subsea valves and pumps
Compressors
O-rings, T-section seals, special profiles and custom-made seals

Other materials in this range

EnDura® V91A (FKM -46°C / -51°F)
EnDura® V91K (FKM -35°C / -31°F)
EnDura® V91J (FKM -17°C / -1°F)
EnDura® Z95X (HNBR)
EnDura® A90H (TFE/P)

Tested to
NACE TM0297



Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FFKM	FFPM	
Colour			Black
Hardness: (°IRHD)	D1415	ISO48	90
Tensile Strength (MPa)	D412	ISO37	26
Elongation at break (%)	D412	ISO37	110
Modulus @ 50% (MPa)			-
Modulus @ 100% (MPa)			25
Compression Set:			
24 hrs @ 200°C (392°F)	D395	ISO815	24%
350hrs @ 200°C (392°F)			35%
Minimum Operating Temperature			-15°C (+5°F)
Maximum Operating Temperature			+260°C (+500°F)

SPECIAL NOTE: This information is to the best of our knowledge accurate and reliable. However, Precision Polymer Engineering 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 programme of inspection and replacement is strongly recommended. The material properties above should not be used for specification purposes.

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