Product Data Sheet

EnDura® V91A

Ultra-low temperature ED resistant fluoroelastomer for the oilfield industry

Description

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

The EnDura® range of elite materials has been specifically formulated for Explosive Decompression (ED) resistance in downhole, surface and subsea oilfield equipment.

EnDura® V91A provides the ultimate in low temperature performance, combined with excellent ED resistance.

Key Attributes

- Excellent Explosive Decompression resistance at temperatures down to -51°C (-60°F).
- Tested to **NORSOK M710** Annex B
- Tested to **ISO23936-2** ED standard
- Tested to **NACE** standards: **TM0297** (ED) & **TM0187** (Sour Gas)
- Tested to **ISO 10423 (API 6A)** Sour Gas standard
- Improved resistance to methanol, sour gas, hot water, steam and oils as compared with conventional FKM compounds
- Excellent compression set characteristics provide long-term sealing capability and improved leak prevention thus minimizing equipment failure

Typical Applications

Extreme low temperature and high pressure environments
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® V91K (-41°C / -42°F)
EnDura® V91J (-18°C / -1°F)
EnDura® Z95X (HNBR)
EnDura® A90H (TFE/P)

Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FKM	FPM	Terpolymer
Colour			Black
Hardness: (°IRHD)	D1415	ISO48	90
Tensile Strength (MPa)	D412	ISO37	14
Elongation at break (%)	D412	ISO37	130
Modulus @ 50% (MPa)			5.1
Modulus @ 100% (MPa)			10.4
Compression Set: 24 hrs @ 200°C (392°F)	D395	ISO815	19%
TR10	D1329		-46°C (-51°F)
Minimum Operating Temperature			-51°C (-60°F)
Maximum Operating Temperature			+225°C (+437°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 to be used for specification purposes.