

EnDura[®] A90H

Aflas[®] based ED resistant rubber for the oilfield industry

ENDURA[®]

Description

A90H is a high performance, explosive decompression resistant, elastomer formulated using Aflas[®] FA-100H for the demanding sealing applications experienced in the oil and gas exploration and extraction industry.

A90H exhibits similar thermal stability to fluor elastomer (FKM) grades but offers a different chemical resistance profile.

A90H provides particularly high resistance to acids, amines, steam, brine, sour oil and gas (H₂S).

Key Attributes

- ▶ Excellent resistance to Explosive Decompression
- ▶ Tested to **NORSOK M710** Annex A & B
- ▶ Tested to **ISO 23936-2** ED standard
- ▶ Tested to **NACE TM0297** ED standard
- ▶ Tested to **TOTAL GS PVV142** ED specification
- ▶ Resistant to high pressure CO₂ gas
- ▶ Ideal for prolonged exposure to steam
- ▶ Short-term high temperature capability up to 290°C (554°F)
- ▶ Excellent resistance to fluids with high H₂S concentration

Typical Applications

High temperature pumps
Safety valves
Logging equipment
Completion and production equipment

Other materials in this range

ENDURA[®] V91A (-46°C / -51°F)
ENDURA[®] V91K (-35°C / -31°F)
ENDURA[®] V91J (-17°C / -1°F)
ENDURA[®] Z95X (HNBR)



Typical Material Properties

Property	ASTM	ISO	Value
Material Type	TFE/P	TFE/P	Copolymer
Colour			Black
Hardness: (°IRHD)	D1415	ISO48	93
Tensile Strength (MPa)	D412	ISO37	19
Elongation at break (%)	D412	ISO37	130
Modulus @ 50% (MPa)			13.5
Modulus @ 100% (MPa)			17.5
Compression Set: 24 hrs @ 200°C (392°F)	D395	ISO815	32%
Heat Resistance: 72 hrs @ 200°C (392°F)	D573	ISO188	
Hardness change (°IRHD)	D1415	ISO48	0
Tensile strength change (%)	D412	ISO37	+3
Elongation at break change (%)	D412	ISO37	-15
Minimum Operating Temperature (static operation)			0°C (+32°F)
Maximum Operating Temperature			+250°C (+482°F)

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



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www.prepol.com | Europe: +44 (0) 1254 295400 | USA: +1 713 482 0123 | Asia: +86 21 5241 5599 | Email: prepol.sales@idexcorp.com

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Precision Polymer Engineering Limited

A Unit of IDEX Corporation