

V95X

High performance copolymer fluoroelastomer for the oilfield industry



Description

V95X is a high performance general purpose copolymer fluoroelastomer (FKM). This material provides excellent compression set performance and good chemical resistance to phosphate ester, acids, aliphatic and aromatic hydrocarbons, brines, solvents and petroleum fluids.

V95X offers superior high temperature capability over HNBR elastomers and provides outstanding O-ring sealing force retention over most other oil-heat resistant elastomers with the exception of FFKM perfluoroelastomers.

Key Attributes

- ▶ Good resistance to Explosive Decompression
- ▶ Wide chemical resistance
- ▶ Excellent properties in high pressure applications
- ▶ High strength and extrusion resistant

Typical Applications

Low temperature and high pressure environments
 Exploration and drilling equipment
 Completion equipment
 Subsea valves and pumps
 Compressors
 O-rings, special profile and custom-made seals

Other materials for oilfield applications

EnDura® range of ED resistant elastomer materials
 Perlast® perfluoroelastomer (FFKM)
 V97D - Shell approved ED resistant fluoroelastomer (FKM)
 Z85L (HNBR)

Fluid Resistance

ASTM D471	Fuel C 70hrs @ 23°C (73°F)	Fluid 101 70hrs @ 200°C (392°F)
Hardness change (°IRHD)	-4	-11.9
Tensile change	-15.2%	-5.9%
Elongation change	-17.9%	-7.7%
Volume change	+5.6%	+1.3%



Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FKM	FPM	Copolymer
Colour			Black
Hardness: (°IRHD)	D1415	ISO48	92
Tensile Strength (MPa)	D412	ISO37	16
Elongation at break (%)	D412	ISO37	120
Modulus @ 50% (MPa)			6.0
Modulus @ 100% (MPa)			10.0
Compression Set: 24 hrs @ 200°C (392°F)	D395	ISO815	15%
Heat Resistance: 72 hrs @ 250°C (482°F)	D573	ISO188	
Hardness change (°IRHD)	D1415	ISO48	+5
Tensile strength change (%)	D412	ISO37	-5
Elongation at break change (%)	D412	ISO37	-20.7
Minimum Operating Temperature			-20°C (-4°F)
Maximum Operating Temperature			+200°C (+392°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.