

EnDura® Z95X

High performance ED resistant HNBR for the oilfield industry

ENDURA®

Description

Z95X is a peroxide-cured, explosive decompression resistant HNBR compound.

Z95X provides good chemical resistance to sour gas (H₂S), crude oil, lubricating agents, and oil additives, with superior resistance to carbon dioxide, water, drilling mud and amine corrosion inhibitors.

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

The high mechanical strength and abrasion resistance of Z95X makes it particularly suitable for dynamic applications.

Key Attributes

- ▶ Excellent Explosive Decompression resistance
- ▶ Tested to **NORSOK M710** Annex B
- ▶ Tested to **TOTAL GS PVV 142 03/01** ED specification
- ▶ Tested to **NACE TM0297** ED standard
- ▶ Improved resistance to weather and heat than standard nitrile grades
- ▶ Good chemical resistance especially to oil and fuel
- ▶ High mechanical strength

Typical Applications

Low temperature and high pressure environments
Exploration and drilling equipment
Cementing and completion equipment
Subsea valves and pumps
Blow-out preventers (BOPs)
Mud motors
Rotary lip seals

Other materials in this range

EnDura® V91A (-51°C / -60 °F)
EnDura® V91K (-41°C / -42°F)
EnDura® V91J (-18°C / -1°F)
EnDura® A90H (TFE/P)

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Typical Material Properties

Property	ASTM	ISO	Value
Material Type	HNBR	HNBR	Med ACN
Colour			Black
Hardness: (°IRHD)	D1415	ISO48	89
Tensile Strength (MPa)	D412	ISO37	32.1
Elongation at break (%)	D412	ISO37	264
Modulus @ 50% (MPa)			10.0
Modulus @ 100% (MPa)			18.0
Compression Set: 24 hrs @ 150°C (302°F)	D395	ISO815	20%
Heat Resistance: 70 hrs @ 150°C (302°F)	D573	ISO188	
Hardness change (°IRHD)	D1415	ISO48	+2
Tensile strength change (%)	D412	ISO37	+3.5
Elongation at break change (%)	D412	ISO37	+3.5
Minimum Operating Temperature			-29°C (-20°F)
Maximum Operating Temperature			+180°C (+356°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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www.prepol.com | Europe: +44 (0) 1254 295400 | USA: +1 713 482 0123 | Asia: +86 21 5241 5599 | Email: prepol.sales@idexcorp.com