

EnDura[®] Z90LT

Low temperature ED resistant HNBR for the oilfield industry



Description

EnDura[®] Z90LT is a peroxide cured hydrogenated nitrile elastomer compound specially developed for high pressure applications to reduce the risk of rapid gas decompression seal failure and maintain resilience at low temperatures.

Z90LT has been specifically developed for Explosive Decompression (ED) resistance and meets the requirements of the industry standards ISO 23936-2 and NORSOK M710 unlike conventional low temperature HNBR materials. This unique combination of properties enables Z90LT to be used in many types of oilfield equipment.

Applications include valves, downhole tools, drill bits, subsea equipment, wellhead, and other surface equipment.

Key Attributes

- ▶ ISO 23936-2 resistance to rapid gas decompression
- ▶ NORSOK M710 resistance to rapid gas decompression
- ▶ Outstanding low temperature resilience
- ▶ Superior H₂S resistance compared to standard HNBR
- ▶ High Mechanical Strength
- ▶ Excellent oil and methanol resistance

Typical Applications

Low temperature and high pressure environments
Subsea valves and pumps
Exploration and drilling equipment
Cementing and completion equipment
Wellhead and trees

Other materials in this range

EnDura[®] V91A, FKM (-51°C / -60 °F)
EnDura[®] Z95X, HNBR (-29°C / -20°F)
Perlast[®] ICE G90LT, FFKM (-46°C / -51°F)

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Typical Material Properties

Property	ASTM	ISO	Value
Material Type	HNBR	HNBR	Low ACN
Colour			Black
Hardness: (°IRHD)	D1415	ISO48	87
Tensile Strength (MPa)	D412	ISO37	24.1
Elongation at break (%)	D412	ISO37	132
Modulus @ 100% (MPa)			20.1
Compression Set: 24 hrs @ 150°C (302°F)	D395	ISO815	25%
Heat Resistance: 70 hrs @ 150°C (302°F)	D573	ISO188	
Hardness change (°IRHD)	D1415	ISO48	+3
Tensile strength change (%)	D412	ISO37	-11.7
Elongation at break change (%)	D412	ISO37	-13.6
Glass Transition: T _g	D3418		-45°C (-49°F)
Minimum Operating Temperature			-55°C (-67°F)
Maximum Operating Temperature			+160°C (+320°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.



Quotation's and Order's you can send to: sales@oring.su
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