

M SEALS XNBR-B90

Carboxylated Nitrile Rubber 90a

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Abrasion / Tear Resistance

Description

XNBR-B90 is a 90a Shore Carboxylated Nitrile Butadiene Rubber (XNBR90), commonly referred to as XNBR or X-Nitrile. XNBR-B90 is similar to standard Nitrile but with the addition of a Carboxyl group at the polymerisation stage of manufacture. This Carboxyl addition provides increased tear and abrasion resistance when compared to basic NBR which makes it a good choice for dynamic seals. For new applications though, the use of HNBR is preferred.

Good physical characteristics and chemical resistance to the most common hydraulic industry fluids such as Mineral Oils, HFA, HFB and HFC make XNBR-B90 a suitable seal material in many industrial applications.

XNBR-B90's use in Aromatic and Chlorinated Hydrocarbons, Polar Solvents, Brake Fluid and Strong Acids should be avoided.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ISO 1183-1	g/cm ³	1.26
Hardness @ 23°C	ISO 7619-1	Shore A	89 (+/-5)
Tensile Strength	DIN 53504	MPa	21.4
100% Modulus	DIN 53504	MPa	16.1
Elongation at break	DIN 53504	%	144
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	9.9
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	12.9
Minimum service temperature		°C	-30
Maximum service temperature		°C	+100

Main Characteristics

- Good fluid resistance
- Good compression set resistance
- Good physical properties
- Excellent tear and abrasion resistance
- Useful temperature range

Typical Products

- O-Ring Energised U-Seals / U-Rings
- T-Seals
- Wiper seals
- O-Rings
- Bespoke parts

Tel: 0044 (0) 114 243 2777 . Fax: 0044 (0) 114 242 2300 . Mail: sales.esd@m-seals.co.uk . Web: www.m-seals.com

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