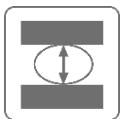


M SEALS LTNBR-B80

80a Low Temperature Nitrile Butadiene Rubber



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Compression Set Resistance



Elastic Behaviour



Low Temperature

Description

M Seals material LTNBR-B80 is a soft 80a Shore hardness Nitrile Butadiene Rubber which has been modified to provide excellent low-temperature flexibility and elasticity. This low-temperature flexibility is made possible by the material having a reduced ACN (Acrylonitrile) content when compared to standard grades of NBR. The reduced ACN content means the material has a reduced chemical resistance, so care should be taken when use at elevated temperatures may be required.

Good physical characteristics and chemical resistance to the most common hydraulic industry fluids such as Mineral Oils, HFA, HFB and HFC make LTNBR-B80 a suitable seal material in many industrial applications.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ISO 1183	g/cm ³	1.27
Hardness	ISO 868	Shore A	80 (+/-5)
Tensile Strength	DIN 53504	MPa	14
Elongation at break	DIN 53504	%	140
Tear strength	DIN 53515	KN/m	15
Rebound resilience	DIN 53512	%	50
Compression set (24 Hours @ 70°C, 25%)	ISO 815	%	<6
Compression set (24 Hours @ 100°C, 25%)	ISO 815	%	<9
Minimum service temperature		°C	-50
Maximum service temperature		°C	+110

Main Characteristics

- Excellent elastic behaviour
- Excellent compression set characteristics
- Excellent low temperature flexibility
- Good rebound behaviour

Typical Products

- T-Seals
- U-Seals/U-Rings
- Wiper Seals
- Static Seals & O-Rings

Typical Applications

Due to its excellent low temperature flexibility, elasticity and rebound behaviour, LTNBR-B80 Nitrile elastomer can be used for rod seals, piston seals and static seals operating in severe low temperature hydraulic and pneumatic applications.