

M SEALS NBR-B90

Hard Grade 90A Nitrile Rubber

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Description

NBR-B90 is a general purpose 90a Shore Nitrile Butadiene Rubber (NBR90), commonly referred to as NBR, Nitrile or BUNA-N. Due to the increased hardness of this material, it is a good choice for applications where softer materials may suffer from extrusion or where increased pressure capability may be required. The increased hardness of this material reduces its flexibility, possibly making installation more difficult, we recommend taking care when choosing this material.

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

Care should be taken when using Nitrile in water or water-based fluids at elevated temperatures above +40°C, in some instances base ingredients within the fluid can become aggressive and cause material degradation.

Talk to our technical team if you require further advice.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ISO 1183-1	g/cm ³	1.23
Hardness @ 23°C	DIN 53505	Shore A	90 (+/-5)
Tensile strength	DIN 53504	MPa	18.7
Elongation at break	DIN 53504	%	82
Rebound resilience	DIN 53512	%	26
Tear resistance	ISO 34-1 B	N/mm	3
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	9.5
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	18.5
Minimum service temperature		°C	-25
Maximum service temperature		°C	+100

Main Characteristics

- Good fluid resistance
- increased extrusion resistance
- Good physical properties
- Useful temperature range
- Good pressure resistance

Typical Products

- Energised U-Seals / U-Rings
- Static face seals
- Wiper seals
- O-Rings
- Bespoke parts

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