M SEALS **HNBR-B85**

Hydrogenated-Acrylonitrile-Butadiene-Rubber
Standard Grade Peroxide Cured HNBR

MATERIAL DATA SHEET (Version 6.0 – 05.2022)


High Temperature


Chemical Resistance

Description

HNBR-B85 is a Peroxide cured Hydrogenated-Acrylonitrile-Butadiene-Rubber material commonly referred to as HNBR or HSN. This material exhibits some very useful physical characteristics including excellent abrasion resistance, good compression set resistance while offering a wide temperature range. HNBR is often a useful intermediate material for applications where standard Nitrile performance is not quite good enough, but Fluorocarbon rubbers (FKM/Viton™) are overkill or incompatible with the media to be sealed.

HNBR-B85 provides good chemical resistance in the most commonly used hydraulic fluids, and applications where crude oils, sour oils/gases (H_2S), animal and vegetable oils are found.

Physical Properties

Property	Test method	Unit	Typical Value
Colour			Black
Density	ISO 1183-1	g/cm^3	1.23
Hardness	ISO 7619-1	Shore A	83(+/-5)
Tensile Strength	DIN 53504	N/mm^2	19.3
Tensile Modulus 100%	DIN 53504	N/mm^2	9.5
Elongation at break	DIN 53504	%	241
Tear Strength	ISO 34-1 B	N/mm	19.6
Rebound resilience	DIN 53512	%	28
Compression set (25% Strain 24 Hours @ 70°C)	ISO 815-1	%	13.5
Compression set (25% Strain 24 Hours @ 100°C)	ISO 815-1	%	15
Compression set (25% Strain 24 Hours @ 150°C)	ISO 815-1	%	22
Minimum service temperature		°C	-25
Maximum service temperature		°C	+150
Maximum service temperature (Short term)		°C	+170

Main Characteristics

- Good chemical resistance
- Useful temperature range
- Good abrasion resistance
- Good physical properties

Typical Products

- T-Seals
- Energised U-Seals
- Static Seals & O-Rings
- Scraper/Wiper seals

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