

M SEALS HNBR-G85

Green Commercial Grade Hydrogenated Nitrile Butadiene Rubber (HNBR)



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



High Temperature



Chemical Resistance

Description

HNBR-G85 is a green coloured commercial grade Hydrogenated-Acrylonitrile-Butadiene-Rubber material commonly referred to as HNBR, H-NBR or HSN. This material exhibits some very useful physical characteristics including excellent abrasion and tear resistance while providing a useful temperature range and chemical resistance.

Its green colouring makes it easily identifiable against more common grades of elastomer. 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-G85 provides good chemical resistance in the most commonly used hydraulic fluids, and applications where crude oils, sour oils/gases, low level H₂S, animal and vegetable oils are found.

Physical Properties

Property	Test method	Unit	Typical Value
Colour			Green
Density	ISO 1183-1	g/cm ³	1.32
Hardness	DIN 53505	Shore A	85(+/-5)
Tensile Strength	DIN 53504	N/mm ²	19.5
Tensile Modulus 100%	DIN 53504	N/mm ²	9.6
Elongation at break	DIN 53504	%	189
Tear Strength	ISO 34-1 A	N/mm	4.6
Abrasion	DIN 53516	mm ³	112
Rebound resilience	DIN 53512	%	36
Compression set (25% Strain 24 Hours @ 100°C)	ISO 815-1	%	18
Compression set (25% Strain 24 Hours @ 150°C)	ISO 815-1	%	23
Minimum service temperature		°C	-25
Maximum service temperature		°C	+150
Maximum service temperature (Short term in Air)		°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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