

M SEALS HNBR-EDB85

Norsok M-710 Explosive Decompression Resistant HNBR

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



High Temperature



Norsok M710
ED Resistance



Chemical Resistance

Description

HNBR-EDB85 is a Peroxide cured Hydrogenated-Acrylonitrile-Butadiene-Rubber, commonly referred to as Highly Saturated Nitrile, HNBR, H-NBR or HSN. This material has been optimised and tested against Norsok M-710 requirements for resistance to Explosive Decompression (ED).

HNBR-EDB85 provides good chemical resistance in the most commonly used hydraulic fluids, animal, vegetable, Silicone and Biodegradable oils, crude oils and applications where low-level sour oils/gases (H₂S) are found.

Physical Properties

Property	Test method	Unit	Typical Value
Colour			Black
Density	ISO 1183-1	g/cm ³	1.29
Hardness	ISO 868	Shore A	85(+/-5)
Tensile Strength	DIN 53504	MPa	≥17
Tensile Modulus 100%	DIN 53504	MPa	≥7
Elongation at break	DIN 53504	%	≥190
Tear Strength	ISO 34-1	kN/m	≥21
Rebound resilience	DIN 53512	%	30
Compression set (25% Strain 24 Hours @ 70°C)	ISO 815-1	%	≤17
Compression set (25% Strain 24 Hours @ 100°C)	ISO 815-1	%	≤21
Compression set (25% Strain 24 Hours @ 150°C)	ISO 815-1	%	≤30
Minimum service temperature		°C	-15
Maximum service temperature		°C	+150
Maximum service temperature (Steam)		°C	+110

Norsok M-710 Rev2 ED resistance in 10% CO ₂ + 90% CH ₄ @ 15MPa - 100°C		
Material	Summary Rating	Conclusion
HNBR-EDB85	0 0 0 0	PASS
Conditions: 10.5% compression and 65% groove fill.		

Main Characteristics

- Norsok M-710 REV2 Annex B passed
- Good abrasion resistance
- Good physical properties
- Explosive Decompression Resistance

Typical Products

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

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