AF1303 Data Sheet HN901-B85-RGD-LT

H-NBR HN901-RGD-LT – Black (Peroxide Cross Linked)

General

HN901-B85-RGD-LT is a black hydrogenated acrylonitrile-butadiene-rubber commonly referred to as H-NBR, with excellent physical characteristics and chemical resistance to the most common hydraulic fluids, sour oils/gases (H2S) and crude oils. HN901-B85-RGD-LT has been optimised to withstand the risk of rapid gas decompression (RGD) or explosive decompression (ED) at low temperature applications in the oil and gas industry.

Physical properties

Density	DIN 53479	g/cm^3	1,39
Hardness at 20°	DIN 53505	Shore A	88
Modulus 100%	DIN 53504	N/mm^2	3,1
Tensile strength	DIN53504	N/mm^2	8,9
Elongation at break	DIN 53504	%	277
Tear strength, trouser test	ISO 34-1A	kN/m	4,1
Rebound resilience	DIN 53512	%	39
Compression set: 100°C, 24 hour	DIN 53517	%	13
Compression set: RT, 72 hour*	DIN 53517	%	14,4
Compression set: 150°C, 24 hour	DIN 53517	%	20,4
Min. service temperature		°C	-40
Max. service temperature		°C	150

*25% deflection.

Chemical resistance

Resistant to	Oil, fuels, hydrocarbons, hydrogen sulphide, steam up to 140°C, ozone
Not resistant to	Methanol, nitric acid, acetone

Main application

Static and dynamic seals, O-Rings, flange seals, rubber energisers (preload elements) in the oil and gas industry, especially in applications with high gas pressure.

Rapid Gas Decompression (RGD) validation

The compound has passed the RGD test at MERL UK with the highest possible rating of 0000. Test conditions, according Norsok M-710, were 10 decompressions cycles with 90% Methane + 10% Carbon dioxide gas at 100° C and 150 bar test pressure.
A certificate is available on request.

Analysis and evaluation

The mentioned properties are only valid for test pieces of the corresponding ISO, DIN and ASTM standards. They cannot be directly related to seals, gaskets and other sealing products and should be used only as a general guide. Contact with improper fluids might influence the application properties.

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All information is based on typical test results performed under specific conditions and limited sample size. This does not represent a legally binding guarantee of certain properties or the suitability for specific applications.

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