

Material Data Sheet HN112-B85

H-NBR HN112 – black (peroxide cross linked)

General

HN112-B85 is a black hydrogenated acrylnitrile-butadiene-rubber commonly referred to as H-NBR. Due to its good physical characteristics and chemical resistance to the most common hydraulic fluids it is an excellently suitable sealing material for a wide range of applications. H-NBR materials are often used in vegetable and animal oils as well as in highly addivated oils, sour oils/gases (H₂S) and crude oils.

Physical properties

Density:	DIN 53479	g/cm ³	1,23
Hardness at 20°C:	DIN 53505	Shore A	85 ±5
Tensile strength:	DIN 53504	N/mm ²	21,7 ±15%
Elongation at break:	DIN 53504	%	215 ±20%
Modulus 100%:	DIN 53504	N/mm	-
Tear strength:	DIN 53507B	N/mm	6,6 ±15%
Compression set: 70h/RT:	DIN 53517A	%	-
Compression set: 22h/70°C:	DIN 53517A	%	20,2 ±20%
Compression set: 22h/100°C:	DIN 53517A	%	22,3 ±20%
Min. service temperature:		°C	-25
Max. service temperature:		°C	150

Chemical resistance

Water up to 90°	R	Diesel Fuel	R
Steam	U	Gasoline Fuel	S
HFA, HFB, HFC Fluids	R	Ozone	R
Mineral oils	R	Alcohols	R
Vegetable oils	R	Air up to 80°	R
Silicone oils	S		
Biodegradable oils	S		

Key to chemical resistance: R = resistant S = suitable U = unsuitable

Main application

Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements). General application in petroleum fluids, water, greases, mineral oils, oil and gas industry.

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.