

Material Data Sheet N107-B85

NBR N107 – black (sulphur cross linked)

General

N107-B85 is a black Nitrile Butadiene Rubber commonly referred to as NBR, Nitrile or BUNA. Because of its good physical characteristics and chemical resistance to the most common hydraulic fluids NBR is excellently suitable for sealing material. NBR materials are one of the most used elastomers in sealing applications.

Physical properties

Density:	DIN 53479	g/cm ³	1,31
Hardness at 20°C:	DIN 53505	Shore A	85 ±5
Tensile strength:	DIN 53504	N/mm ²	15,9 ±15%
Elongation at break:	DIN 53504	%	159 ±20%
Modulus 100%:	DIN 53504	N/mm	5,8 ±30%
Tear strength:	DIN 53507B	N/mm	4,7
Compression set: 70h/RT:	DIN 53517A	%	8 ±25%
Compression set: 22h/70°C:	DIN 53517A	%	8 ±25%
Compression set: 22h/100°C:	DIN 53517A	%	12 ±25%
Min. service temperature:		°C	-25
Max. service temperature:		°C	100

Chemical resistance

Water up to 70°	R	Diesel Fuel	R
Water up to 90°	S	Gasoline Fuel	S
Steam	U	Alcohols	R
HFA, HFB, HFC Fluids	R	Ozone, Oxygen	U
HFD Fluids	U	Air up to 100°	R
Mineral / vegetable oils	R	Air up to 150°	U
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 applications in petroleum fluids, water, greases, mineral oils.

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.