

## **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. Good physical characteristics and chemical resistance to the most common hydraulic fluids makes NBR an excellent sealing material. NBR materials are one of the most used elastomers in sealing applications.

#### **Physical properties**

Density:	DIN 53479	g/cm <sup>3</sup>	1,32
Hardness at 20°:	DIN 53505	Shore A	85 +/-5
Tensile strength:	DIN 53504	N/mm <sup>2</sup>	17,2 +/-15%
Elongation at break:	DIN 53504	%	171 +/-20%
Modulus 100%:	DIN 53504	N/mm	10,2 +/-30%
Tear strength	DIN 53507B	N/mm	3,3
Compression set: 70h/RT	DIN 53517A	%	6,0 +/-25%
Compression set: 22h/70°C	DIN 53517A	%	6,7 +/-25%
Compression set: 22h/100°C	DIN 53517A	%	6,8 +/-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.