

## **Material Data Sheet HN112-B85**

### **H-NBR HN112 – black (peroxide cross linked)**

#### **General**

HN112-B85 is a black hydrogenated acrylonitrile-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 (H<sub>2</sub>S) and crude oils.

#### **Physical properties**

Density:	DIN 53479	g/cm <sup>3</sup>	1,23	±0,03
Hardness at 23°C:	DIN 53505	Shore A	83	±5
100% Modulus:	DIN 53504	N/mm <sup>2</sup>	9,5	*
Tensile strength:	DIN 53504	N/mm <sup>2</sup>	19,3	*
Elongation at break:	DIN 53504	%	241,5	*
Tear resistance:	DIN 53515	kN/m	55,9	*
Rebound resilience:	DIN 53512	%	28,0	*
Compression set, 24h, 70°C, 25%:	DIN 53517	%	15,0	*
Compression set, 24h, 100°C, 25%:	DIN 53517	%	13,5	*
Compression set, 24h, 150°C, 25%	DIN 53517	%	22,1	*

\* mentioned values are subject to a tolerance of +/- 25%

**Temperature range:** **-25°C to 150°C**

#### **Chemical resistance**

Resistant to: Water up to 90°C, HFA, HFB, HFC Fluids, Mineral Oils, Vegetable Oils, Diesel Fuel, Ozone, Alcohols, Air up to 80°C

Not Resistant to: Steam

#### **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**

Values mentioned above are based on several tests performed during development and production of the material. Tests have been performed on standard test pieces specified within the relevant standard within the laboratory. Tests performed on any other pieces which are not related to the corresponding standard or made out of any (semi)finished part or any other part deviating in production process, dimension or age of the material from above may result in different values. The data represent our present empirical values and do not disengage the processor or user from his obligation to examine the usage of the material for his specific application.

We reserve the right to update this data sheet from time to time if new empirical values are available. Errors and omissions excepted.

V2.0