

Material Data Sheet N111-W85

NBR-FDA N111 – white (sulphur cross linked)

General

N111-W85 is a white 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. NBR-FDA N111 – white is approved for the use of applications in contact with foodstuff.

Physical properties

Density:	DIN 53479	g/cm ³	1,38	±0,03
Hardness at 23°C:	DIN 53505	Shore A	85	±5
100% Modulus:	DIN 53504	N/mm ²	5,8	*
Tensile strength:	DIN 53504	N/mm ²	10,6	*
Elongation at break:	DIN 53504	%	285,1	*
Tear resistance:	DIN ISO 34-1A	N/mm	7,2	*
Rebound resilience:	DIN 53512	%	23,0	*
Compression set, 24h, 70°C, 25%:	DIN 53517	%	11,0	*
Compression set, 24h, 100°C, 25%:	DIN 53517	%	14,3	*

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

Temperature range: **-22°C to 100°C**

Chemical resistance

Resistant to: water up to 70°C, HFA, HFB, HFC Fluids, mineral/vegetable oils, Diesel fuel, Gasoline Fuel, Alcohols

Not Resistant to: Steam, HFD fluids, Ozone

Main application

Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements). Applications in the food industry.

Available certificates

- Conform to (EC) No 1935/2004 and (EC) No 10/2011
- Conform to positive list of FDA 21 CFR 177.1680

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.

V3.0