Material Data Sheet 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 ISO 1183-1	g/cm³	1,38 ±0,03
Hardness at 23°C:	DIN ISO 7619-1	Shore A	85 ±5
100% Modulus:	DIN 53504	N/mm²	5,8 *
Tensile strength:	DIN 53504	N/mm²	10,6*
Elongation at break:	DIN 53504	%	285,1 *
Tear resistance:	DIN ISO 34-1A	N/mm	7,2 *
Rebound resiliance:	DIN 53512	%	23,0*
Compression set, 24h, 70°C, 25%:	DIN ISO 815-1	%	11,0*
Compression set, 24h, 100°C, 25%:	DIN ISO 815-1	%	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 on materials and articles intended to come into contact with food
- Conform to positive list of FDA 21 CFR 177.2600

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 represents our present empirical values and does not disengage the end user from their obligation to examine the usage of the material for each 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.

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