

## Material Data Sheet NBR - Black

**NBR**

### GENERAL DETAILS

DMR NBR is a black Nitrile Butadiene Rubber, commonly referred to as NBR, Nitrile or Buna. Good physical properties and chemical resistance to the most common hydraulic fluids makes NBR an excellent sealing material. NBR materials are one of the most commonly used elastomers in sealing applications.

PHYSICAL PROPERTIES	STANDARD	UNIT	VALUE
Specific Gravity	DIN 53479	g/cm <sup>3</sup>	1.32
Hardness at 20°C	DIN 53505	Shore A	85
Tensile Strength	DIN 53504	N/mm <sup>2</sup>	>17
Elongation at break	DIN 53504	%	>155
Modulus 100%	DIN 53504	N/mm <sup>2</sup>	10.2
Compression set 22h / 70°C	DIN 53517A	%	7
Compression set 22h / 100°C	DIN 53485	%	9
Min Service Temperature		°C	-25
Max Service Temperature		°C	100

### CHEMICAL RESISTANCE

Water up to 70°C	R
Water up to 90°C	S
HFA Fluids	R
HFB Fluids	R
HFC Fluids	R
HFD Fluids	U
Mineral Oils	R
Vegetable Oils	R
Fuels	R
Ozone	U
Air up to 100°C	R
Air up to 150°C	U
Air up to 200°C	U

### MAIN APPLICATIONS

Seals (Standard & special)  
Wipers  
O-Rings  
Rotary seals  
Flange seals  
Gaskets

### KEY TO CHEMICAL RESISTANCE

R = Resistance  
S = Suitable  
U = Unsuitable

### ANALYSIS AND EVALUATION

The properties mentioned are only valid for test pieces of the corresponding ISO, DIN and ASTM standards. They Cannot be directly related to finished seals, gaskets or other sealing products and should only be used as a general guide.