



Material Data Sheet H-NBR - Black

HNBR

GENERAL DETAILS

DMR HNBR is a black Hydrogenated Acrylonitrile Butadiene Rubber, commonly referred to as HNBR. Good physical properties and chemical resistance to the most common hydraulic fluids makes HNBR an excellent sealing material. HNBR material is often used in vegetable and animal oils as well as high addivated and crude oils.

| PHYSICAL PROPERTIES | STANDARD | UNIT | VALUE |
|-----------------------------|------------|-------------------|-------|
| Specific Gravity | DIN 53479 | g/cm ³ | 1.23 |
| Hardness at 20°C | DIN 53505 | Shore A | 85 |
| Tensile Strength | DIN 53504 | N/mm ² | >18 |
| Elongation at break | DIN 53504 | % | >200 |
| Compression set 22h / 70°C | DIN 53517A | % | 20 |
| Compression set 22h / 100°C | DIN 53485 | | 22 |
| Min Service Temperature | | °C | -25 |
| Max Service Temperature | | °C | 150 |

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

MAIN APPLICATIONS

Seals (Standard & special)
Wipers
O-Rings
Flange seals
Gaskets
Crude oil applications.

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.