

## **MN76**

### Molded Hydrogenated Acrylonitrile Butadiene Elastomer (HNBR)

# $\begin{bmatrix} N \\ C \\ CH_2 - CH \end{bmatrix} CH_2 - CH = CH - CH_2$ m

### **SPECIFICATIONS**

Property	Spec	Value
Hardness Shore A	DIN 53505	80±5
Density	DIN 53479	1.25 g/cm <sup>3</sup>
Module 100%	DIN 53504 S2	13 MPa
Module 200%	DIN 53504 S2	20 MPa
Tensile Strength	DIN 53504 S2	>20 MPa
Elongation at break	DIN 53504 S2	>200%
Tear strength	ISO 34-1 B	59 N/mm
Tear strength	ISO 34-1 A	>6.5 N/mm
Brittleness Point TR TEST TR 10 TR TEST TR 30 TR TEST TR 50	ASTM D 1329 ASTM D 1329 ASTM D 1329	-18°C -7.6°C -3°C
Compression Set Deformation: 15% Temperature: 125°C – Time: 24h	ISO 815 A	25%

### DESCRIPTION

MN76 is a molded HNBR material with hardness 80±5 Shore A. The first commercialization of hydrogenated nitrile rubber HNBR copolymer was in 1984, almost 50 vears after the commercialization of NBR. To obtain HNBR, NBR is hydrogenated during the polymer synthesis process. Hydrogen is selectively added to the unsaturated carbon-carbon double bonds, of butadiene in the NBR polymer to form saturated carbon-carbon single bonds. Thus HNBR emphasizes two essential features: nitrile, functional groups as in NBR, and a hydrogenated backbone. The nitrile polar group is responsible for HNBR's excellent oil and fuel resistance. The hydrogenated backbone is responsible for HNBR's significantly increased high temperature properties compared to NBR. HNBR has very good ozone and weather resistance thanks to its saturated backbone.