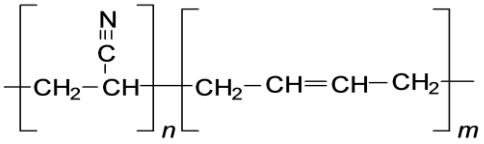
systemseals

MATERIAL SPECIFICATION SHEET

MN71

Hydrogenated Acrylonitrile Butadiene Elastomer (HNBR)



SPECIFICATIONS

Property	Spec	Value
Hardness	ASTM D 1415	70 ± 5
Tensile Strength	ASTM D 412	17.7 MPa
Ultimate Elongation	ASTM D 412	263 %
Specific Gravity	ASTM D 297	1.27 g/cm³
Compression Set 22h/150°C	ASTM D 395 B	22 %
Low Temperature Resistance Brittleness no cracks after three minutes	ASTM D 2137	-40 °C
Low Temperature Resistance	ASTM D 1329	-23.2 °C
Color		Green

DESCRIPTION

MN71 is a HNBR material with hardness 70±5. The first commercialization of hydrogenated nitrile rubber HNBR copolymer was in 1984, almost 50 years 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.