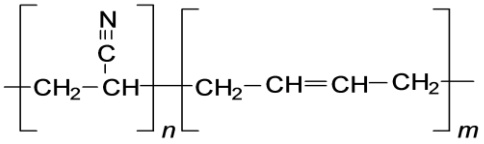
systemseals

MATERIAL SPECIFICATION SHEET

MN200



Highly Saturated Nitrile Butadiene Elastomer (HNBR ED)

SPECIFICATIONS

Property	Spec	Value
Hardness	ISO 868	87 ± 5
100% Modulus (Mpa)	DIN 53 504	≥7
Tensile Strength (Mpa)	DIN 53 504	≥17
Elongation at Break	DIN 53 504	≥190%
Tear Strength (kN/m)	DIN ISO 34-1	≥21
Specific Gravity (kg/m^3)	ISO 1183	≥1290
Rebound Elasticity	DIN 53 512	30%
Abrasion (mm^3)	DIN 53 516	184
Compression Set: 24h, 70C @ 25% def	ISO 815	≤17%
Compression Set: 24h, 100C @ 25% def	ISO 815	≤21%
Compression Set: 24h, 150C @ 25% def	ISO 815	≤30%
Min Service Temperature		-15C 5F
Max Service Temperature		150C 302F
Max Temperature Water/Steam		110C 230F
Max Temperature Hot air/Short		180C 356F
Color		Black

DESCRIPTION

MN200 is a HNBR material with hardness 87 Shore A, specially compounded for highly saturated applications. 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, -C=C-, of butadiene in the NBR polymer to form saturated carbon-carbon single bonds -C-C-. Thus HNBR emphasizes two essential features: nitrile, -C?N, 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.