

MN39

Highly Saturated Nitrile Butadiene Elastomer (HNBR and Fabric)

$\begin{array}{c|c} & N \\ & C \\ & CH_2 - CH \\ & D \\ & D \\ & D \\ & D \\ & CH_2 - CH = CH - CH_2 \\ & D \\$

SPECIFICATIONS

Property	Spec	Value
Color		Black
Weight (gr/m²)		560 ± 30
Compound hardness (Shore A)	ISO 7267/2	65 ± 5
Thickness (mm)		0.60±0.05
Tensile Strength warp/weft (N/cm)	ISO 1421	≥750/≥750
Coating adhesion (N/cm)	ISO 2411	≥15
Low temperature (bend test) (°C)	ISO 4675	-20
Operating temperatures (°C)		-30/+150
Fiber		Cotton
Fiber weight (gr/m²)		230

DESCRIPTION

MN39 is a HNBR material with hardness 65±5 Shore A. 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 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.