

MN306

Highly Saturated Nitrile Butadiene Elastomer (HNBR 90A)

SPECIFICATIONS

Property	Spec	Value
Hardness		90 ± 5
Tensile		3,500 psi
Elongation		320%
100% Modulus		1,450 psi
200% Modulus		2,540 psi
Specific Gravity		1.30
General Temperature Range		-25°F/+320°F
Compression Set 22hrs @ 150°		35%
Color		Green

$$\begin{bmatrix}
N \\
C \\
CH_2-CH
\end{bmatrix}_{n}
\begin{bmatrix}
CH_2-CH_2-CH_2-CH_2
\end{bmatrix}_{m}$$

DESCRIPTION

MN306 is a HNBR material with hardness 90 Shore A, specially compounded for highly saturated applications. The first commercialization of hydrogenated nitrile elastomer 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 carboncarbon 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.