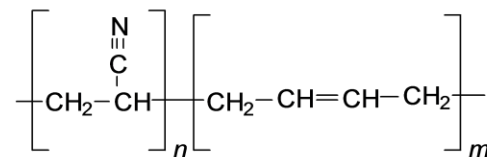


Hydrogenated Nitrile Butadiene Elastomer (HNBR)



SPECIFICATIONS

Property	Spec	Value
Hardness Shore A	D 2240	75±5
Tensile Strength	D 412 DIE C	17.3 MPa
Elongation	D 412 DIE C	252%
Tear Strength	D 624 Die C	49 N/mm
Specific Gravity	D 1817	1.27
Heat Resistance (150°C*70hrs)	D 865	
Hardness Change		+3 pts
Tensile Strength Change		-10%
Elongation Change		-15%
Volume Change		-3%
Compression Set (150°C*22hrs)	D 395	25%
IRM 901 Oil (150°C*70hrs)	D 471	
Hardness Change		+1pts
Tensile Strength Change		+5%
Elongation Change		-10%
Volume Change		-1%
IRM 903 Oil (150°C*70hrs)	D 471	
Hardness Change		-14pts
Tensile Strength Change		-13%
Elongation Change		-14%
Volume Change		+22%
Low Temperature Resistance (-40°C*3 minutes)	D 2137	PASS
Color		Black

DESCRIPTION

MN280 is a HNBR material with hardness 85 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, 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.