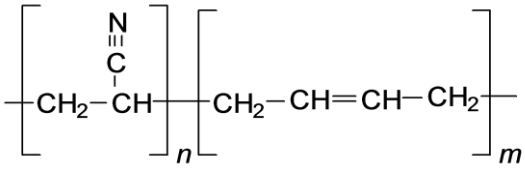
systemseals

MATERIAL SPECIFICATION SHEET

MN192



Hydrogenated Acrylonitrile Butadiene Elastomer (HNBR)

SPECIFICATIONS

Property	Spec	Value
Hardness (Shore A)	**D2240**	**80±5**
Tensile Strength	**D412 Die C**	**23.1 MPa**
Elongation	**D412 Die C**	**270%**
Specific Gravity	**D1817**	**1.35**
Heat Resistance – (150°C x 70 hrs.) –A26 **Hardness Change** **Tensile Strength Change** **Elongation Change** **Volume Change**	**D573**	 **+4 points** **+9%** **-18%** **-2%**
Compression Set – (150°C x 22 hrs.) –B16	**D395B**	**21%**
IRM 901 Oil – (150°C x 70 hrs.) –EO16 **Hardness Change** **Tensile Strength Change** **Elongation Change** **Volume Change**	**D471**	 **+3 points** **+7%** **-9%** **-3%**
IRM 903 Oil – (150°C x 70 hrs.) –EO36 **Hardness Change** **Tensile Strength Change** **Elongation Change** **Volume Change**	**D471**	 **-5 points** **0%** **-8%** **+9%**
Color		**Black**

DESCRIPTION

MN192 is a HNBR material with hardness 80±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, 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.