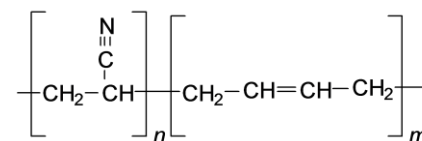


## Hydrogenated Acrylonitrile Butadiene Rubber

(HNBR)

ELASTOMER



### SPECIFICATIONS

Property	Standard(s)	Value(s)	Unit(s)
Hardness	DIN 53505	75±5	Shore A
Specific Gravity	DIN 53479	1.22	g/cm <sup>3</sup>
Tensile Strength	DIN 53504-S2	21.6 3,133	MPa psi
Modulus	DIN 53504-S2	--	MPa psi
Tear Strength	DIN 53507	--	kN/m lbf/inch
Ultimate Elongation	DIN 53504-S2	215	%
Compression Set (24h @ 70°C)	--	--	%
Compression Set (24h @ 100°C)	--	--	%
Compression Set (24h @ 150°C)	ISO 815-1A	14	%
Abrasion	DIN 53516	--	%
Service Temperature, MIN	ISO 1817	-40 -40	°C °F
Service Temperature, MAX	ISO 1817	+140 +284	°C °F
Service Temperature, MAX (H <sub>2</sub> O)	ISO 1817	+100 +212	°C °F
Service Temperature, MAX (H <sub>2</sub> O/Glycol)	--	-- --	°C °F
Use in Food Applications	--	No	--
Color	--	Black	--
Shelf Life <sup>1</sup>	--	7/+3	Years

Note(s):

- Shelf life value(s) listed are IAW SSI *Materials Storage* and all of the parameter(s) of that document MUST be followed to achieve the stated shelf life.
- See systemseals.com for fluid compatibility information.

### DESCRIPTION

MN347 is a HNBR material with hardness 75± 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-. 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.

Ozone Test	No Crack	Unit(s)
Time	24	Ore
Temperature	30	°C
Concentration	50	pphm
Elongation	20	%