GLOBAL O-RING and SEAL
ALL-AROUND BETTER

Phone: (832) 448-5550
Fax: (832) 448-5551
Email: info@globaloring.com
Website: www.globaloring.com

O-ring Compound HNBR70 Data Sheet

Material: Hydrogenated Nitrile, HNBR
70 Durometer, Black

General Information:
Also known as Highly Saturated Nitrile (HSN), it is a synthetic polymer that is obtained by saturating the double bonds in nitrile=s butadiene segments with hydrogen. HNBR has superior heat, ozone, chemical resistance and mechanical characteristics over standard Nitrile.

Cure System: *Peroxide-cured*

Temperature Range: -40°C (-40°F) to 150°C (302°F)

Attributes:
▪Color: Black
▪70±5 Shore A durometer
▪Shelf-life: 15 years

Performs Well In:

- Petroleum based oils and fuels
- Aliphatic hydrocarbons
- Vegetable oils
- Silicone oils and greases
- Ethylene glycol
- Dilute acids, bases and salt solutions to moderate temperatures
- Water and steam to 150 ºC (300 ºF)

Doesn't Perform Well In:

- Chlorinated hydrocarbons
- Ketones
- Ethers
- Esters
- Strong acids

Request A Quote

HNBR70

TEST REPORT FOR COMPOUND HNBR70

MATERIAL: HYDROGENATED NITRILE
DUROMETER: 70
COLOR: BLACK
ASTM* D2000 M4DH716 A26 B16 EO16 EO36 F17 Z1

SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES			
	Hardness, Shore A	70±5	72	D2240-15
	Tensile Strength, min, Mpa	2321(16)(min)	3393(23.40)	D412-15
	Elongation, min, percent	250(min)	282	D412-15
	Modulus at 100%, psi(MPa)		710(4.90)	D412-15
	Density, (Mg/m^3)		1.18	CNS 5341-96)
A26	**HEAT AGE**			D865-11
	70 hours at 150°C (302°F), percent			
	Hardness Change, points	+10	+3	
	Tensile Strength Change, percent	-15	0	
	Elongation Change, percent	-25	-10	
	Weight Change, %		0.3	
B16	**COMPRESSION SET**			D395-16B
	22 hours at 150°C (302°F), max, percent	30%(button)(max)	13.1	
EO16	**IRM901 OIL RESISTANCE**			D471-16
	70 hours at 150°C (302°F)			
	Hardness Change, points	-5 to +10	+1	
	Tensile Change, max, percent	-20(max)	+4	
	Elongation Change, max, percent	-30(max)	0	
	Volume Change, percent	-10 to +5	-2.8	
EO36	**IRM903 OIL RESISTANCE**			D471-16
	70 hours at 150°C (302°F)			
	Hardness Change, points	-15(max)	-5	
	Tensile Change, max, percent	-40(max)	-2	
	Elongation Change, max, percent	-30(max)	-4	
	Volume Change, percent	+25(max)	+10.2	
F17	**LOW-TEMPERATURE RESISTANCE**			D2137-11A
	Sample type: T-50			
	Coolant: Isopropyl alcohol			
	Brittleness temp to nearest 1°C	no cracks	pass	
Z1	**SERVICE TEMP**			
	-50°F to 320°F			

*American Society for Testing and Materials