
Compound N70101 Data Sheet

Material: Butadiene Acrylonitrile Copolymer
70 Durometer, Black, Commercial Grade

General Information:

Nitrile, Buna, or NBR is one of the most common cost-effective sealing elastomers due to its resistance to petroleum-based fuels and lubricants. NBR has good mechanical properties when compared with other elastomers and high wear resistance. NBR is not resistant to weathering

Cure System: *Sulfur-cured*

Sulfur-cured compounds provide better wear resistance, are more cost effective, provide higher ultimate elongation, and improve the ability to withstand repetitive bending.

Temperature Range: -35°C (-31°F) to 120°C (248°F)

Attributes:

Color: Black

Durometer Shore A: 70±5

Shelf-life: 15 years

Resistant to compression set

Resistant to tear/abrasion

Performs Well In:

- Petroleum based oils & fuels
- Aliphatic hydrocarbons
- Vegetable oils
- Silicone oils & greases
- Ethylene glycol
- Dilute acids
- Water to below 100°C (212°F)

Doesn't Perform Well In:

- Aromatic hydrocarbons
- Automotive brake fluid
- Chlorinated hydrocarbons
- Ketones
- Ethers
- Esters
- Phosphate ester hydraulic fluids
- Strong acids
- Ozone / weathering / sunlight

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TEST REPORT FOR COMPOUND N70101

MATERIAL: BUTADIENE ACRYLONITRILE COPOLYMER

DUROMETER: 70

COLOR: BLACK

ASTM* D2000 M2BG714 A14 B14 EA14 EF11 EF21 EO14 EO34

SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	TYPICAL RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES			
	Hardness, Shore A	70±5	66	D2240-15
	Tensile Strength, Mpa	14(min)	16.5	D412-16
	Elongation, min, percent	250(min)	263	D412-16
	Modulus @ 100%, psi (Mpa)		852	D412-16
	Density, (Mg/m ³)		1.25	CNS 5341-96A
A14	HEAT AGE			D573-04
	70 hours at 100°C			
	Hardness Change, points	±15	+4	
	Tensile Strength Change, percent	±30	+12	
B14	COMPRESSION SET			D395-18B
	22 hours at 100°C, percent	25%(plied)(max)	12	
EA14	WATER RESISTANCE			D471-16a
	70 hours @ 100°C			
	Hardness Change, points	±10	-3	
EF11	ASTM FUEL A RESISTANCE			D471-16a
	70 hours at 23°C			
	Hardness Change, points	±10	-4	
	Tensile Change, max, percent	-25(max)	-12	
	Elongation Change, max, percent	-25(max)	-15	
EF21	ASTM FUEL B RESISTANCE			D471-16a
	70 hours at 23°C			
	Hardness Change, points	-30~0	-13	
	Tensile Change, max, percent	-60(max)	-26	
	Elongation Change, max, percent	-60(max)	-31	
EO14	IRM 901 OIL			D471-16a
	70 hours at 100°C			
	Hardness Change, points	-5~+10	+8	
	Tensile Change, max, percent	-25(max)	+11	
	Elongation Change, max, percent	-45(max)	-17	
EO34	IRM 903 OIL			D471-16a
	70 hours at 100°C			
	Hardness Change, points	-10~+5	-6	
	Tensile Change, max, percent	-45(max)	+5	
	Elongation Change, max, percent	-45(max)	-20	
	Volume Change, percent	0~+25	+12	

*American Society for Testing and Materials

Information within this report is believed to be accurate and reliable. However, Global O-Ring and Seal makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate prior to use.

Date: 8/12/2020

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