
Compound N90101 Data Sheet

Material: Butadiene Acrylonitrile Copolymer
90 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: -20°C (-4°F) to 120°C (248°F)

Attributes:

Color: Black

Durometer Shore A: 90±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 N90101 MATERIAL: BUTADIENE ACRYLONITRILE COPOLYMER DUROMETER: 90 COLOR: BLACK ASTM* D2000 M6BG910 A14 B14 EO14 EO34 Z				
	SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	TYPICAL RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES				
	Hardness, Shore A	90±5	87	D2240-15	
	Tensile Strength, min, Mpa	10	17.9	D412-16	
	Elongation, min, %	100	180	D412-16	
	Specific Gravity (ACN Content 33%)	1.30±0.05	1.31	D297-15	
A14	HEAT AGE				D573-15
	70 hours at 100°C				
	Hardness Change, points	±15	+4		
	Tensile Strength Change, percent	-20	+3		
B14	COMPRESSION SET				D395-16B
	22 hours at 100°C, %	25	12		
EO14	IRM 901 OIL RESISTANCE				D471-16a
	70 hours at 100°C				
	Hardness Change, points	-5~+10	+3		
	Tensile Change, max, %	-25(max)	+5		
	Elongation Change, max, %	-45(max)	-2		
	Volume Change, %	-10~+5	-4		
EO34	IRM 903 OIL RESISTANCE				D471-16a
	70 hours at 100°C				
	Hardness Change, points	0~-20	-3		
	Tensile Change, max, %	-45	+5		
	Elongation Change, max, %	-45	+2		
	Volume Change, %	0~+35	+12		
Z	RETRACTION AT LOWER TEMP RESISTANCE				D1329-16
	51mm die, 50% elongation, °C			-20	

*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: 8/25/2020