

Ascend Sealing Technology Compound: N11570BL

Ascend Sealing has developed nitrile rubber (NBR) to be the most cost-effective compound, without sacrificing performance for general usage. Nitrile rubber is one of the most popular material for sealing application. We specially formulated N11570BL for good resistance to common chemicals and oils with ideal mechanical properties. As the for general purpose, N11570BL is a sulfur-cured compound with good balance between physical and chemical resistance.

Service Temperature: -30°F to 250°F (-34°C to 121°C)

Ascend Sealing provides a wide range of NBRs. For additional technical support, please contact us at customer_service@ascendsealing.com.

Compatible

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

Incompatible

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

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Physical Properties

MATERIAL :	BUTADIENE ACRYLONITRILE COPOLYMER
COMPOUND:	N11570BL
SPEC.:	ASTM D2000 M2BG714 A14 B14 EA14 EF11 EF21 EO14 EO34 Z1
COLOR:	BLACK

<u>Original Physical Properties</u>	<u>Requirements</u>	<u>Results</u>
Hardness,(shoreA)(ASTM D2240-15)	70±5	70.5
Tensile Strength,psi(MPa)(ASTM D412-15a)	2031(14)(min)	2901(20.01)
Elongation,(%)(ASTM D412-15a)	250(min)	354
Modulus at 100%,psi(MPa)(ASTM D412-15a)		499(3.44)
Specific Gravity,(g/cm ³)		1.17

<u>A14</u>	<u>Heat age, 70 Hrs @ 100 °C (ASTM D573-04)</u>		
	Hardness Change, pts.	±15	+4
	Tensile Strength Change, %	±30	-12
	Elongation Change, %	-50(max)	-26
	Weight Change, %		-0.6
<u>B14</u>	<u>Compression set, 22 Hrs @ 100 °C (ASTM D395-16,Method B)</u>	25%(button)(max)	9.7
<u>EA14</u>	<u>Water resistance, 70 Hrs @ 100 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	±10	-5
	Tensile Strength Change, %		-5
	Elongation Change, %		-16
	Volume Change, %	±15	+6.4
<u>EF11</u>	<u>ASTM Fuel A Resistance, 70 Hrs @ 23 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	±10	-1
	Tensile Strength Change, %	-25(max)	-12
	Elongation Change, %	-25(max)	-9
	Volume Change, %	-5~+10	+1.2
<u>EF21</u>	<u>ASTM Fuel B Resistance, 70 Hrs @ 23 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	-30~0	-17
	Tensile Strength Change, %	-60(max)	-56

	Elongation Change, %	-60(max)	-45
	Volume Change, %	0~+40	+36.9
<u>EO14</u>	<u>IRM 901 Oil, 70 Hrs @ 100 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	-5~+10	0
	Tensile Strength Change, %	-25(max)	-1
	Elongation Change, %	-45(max)	-7
	Volume Change, %	-10~+5	+0.2
<u>EO34</u>	<u>IRM 903 Oil, 70 Hrs @ 100 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	-10~+5	-9
	Tensile Strength Change, %	-45(max)	-10
	Elongation Change, %	-45(max)	-14
	Volume Change, %	0~+25	+12.2
<u>Z1</u>	<u>Low Temperature Retraction Test (TR Test) (ASTM D1329-08)</u>		
	Testing Elongation 50%		
	The Equipment of measure temperature: thermocouple		
	Length of Sample: 51 mm		
	Rate of Temperature increasing: 1°C/min		
	Test Temperature: 26 °C		
	Coolant : Methanol		
	<u>TR10, °C</u>		-23.3

Statement and recommendation provided in this data sheet correspond to Ascend Sealing Technology's best knowledge on the subject at the date of its publication. The user should conduct their own analysis and testing and is solely responsible for making the final selection of the system and component. Since Ascend Sealing Technology cannot anticipate all the application parameters in actual conditions, we do not guarantee the results and assume no liability in connection with any use of this information.