

## Freudenberg Simrit N470 Nitrile Elastomer (NBR)

Category : Polymer , Thermoset , Rubber or Thermoset Elastomer (TSE)

### Material Notes:

General Purpose; Internal Lubricant. Inferior resistance to ozone, sunlight and natural aging; poor resistance to oxygenated solvents. All testing done on AS568-214 size o-rings

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Freudenberg-Simrit-N470-Nitrile-Elastomer-NBR.php](http://www.lookpolymers.com/polymer_Freudenberg-Simrit-N470-Nitrile-Elastomer-NBR.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.24 g/cc	1.24 g/cc	Original Properties; ASTM D297

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	75	75	Original Properties; ASTM D2240
	67	67	ASTM Reference Fuel B Immersion, 168 hours; ASTM D2240
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	71	71	ASTM IRM-903 Oil Immersion, 70 hours; ASTM D2240
	@Temperature 150 Â°C	@Temperature 302 Â°F	
Tensile Strength, Ultimate	77	77	Air Aging, 70 hours; ASTM D2240
	@Temperature 100 Â°C	@Temperature 212 Â°F	
	17.84 MPa	2588 psi	Original Properties; ASTM D1414
	9.100 MPa	1320 psi	ASTM Reference Fuel B Immersion, 168 hours; ASTM D1414
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	18.02 MPa	2614 psi	Air Aging, 70 hours; ASTM D1414
	@Temperature 100 Â°C	@Temperature 212 Â°F	
Elongation at Break	377 %	377 %	Original Properties; ASTM D1414
	267.67 %	267.67 %	ASTM Reference Fuel B Immersion, 168 hours; ASTM D1414
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	324.22 %	324.22 %	Air Aging, 70 hours; ASTM D1414
	@Temperature 100 Â°C	@Temperature 212 Â°F	
Compression Set	64 %	64 %	ASTM D395
	@Temperature 125 Â°C,	@Temperature 257 Â°F,	

Mechanical Properties	Time 252000 sec Metric	Time 70.0 hour English	Comments
<b>Descriptive Properties</b>	<b>Value</b>	<b>Comments</b>	
Bend (flat)	Pass	AMS 7270K	
Bend Oval	PASS	Low Temperature Brittleness, Fuel B, 48 hours at 23°C, then Fuel A, 48 hours at 23°C, then Fuel A 5 hours at -40°C per AMS-7270K paragraph 4.5.2	
Volume Change (%), ASTM D471	-1.4	Low Temperature Brittleness, Fuel B, 48 hours at 23°C, then Fuel A, 48 hours at 23°C, then Fuel A 5 hours at -40°C per AMS-7270K paragraph 4.5.2	
	15	ASTM IRM-903 Oil Immersion, 70 hours	
	34	ASTM Reference Fuel B Immersion, 168 hours	

## Contact Songhan Plastic Technology Co.,Ltd.

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