

Compound

**5616****NITRILE - BUTADIENE  
60 DUROMETER  
BLACK COLOR****PRODUCT DATA SHEET**

Compound 5616 is a 60 durometer black colored Buna N elastomer, it is formulated for low temperature flexibility. It exhibits good resistance to petroleum based oils and gasoline type fuels. It also offers good resistance to boiling water.

This compound will meet or exceed the specifications listed and has the following physical properties:

ASTM D2000 2 BF 620 B14 B34 EO14 EO34  
2 BG 620 B14 B34 EO14 EO34 EF11 EF21 EA14 F17  
3 BG 620 B14  
4 BG 620 B14  
5 BG 620 A14 B14 B34 EO14 EO34  
2 CH 620 A25 B14 B34 EO15 EO35 F17  
3 CH 620 A25 B14 B34 EO16 EO36  
5 CH 615 A25 B14 B34 F14  
6 CH 615 B14 B34 F14

**Original Properties**

Modulus @ 100% Elongation	368 psi	2.5 MPa
Tensile Strength	2027 psi	14.0 MPa
Ultimate Elongation	410 %	
Hardness, Shore A	65 Durometer	
Specific Gravity	1.19 grams/cc	
Brittleness Temperature	-56 °F	-49 °C
Tear Resistance, Die B	213 ppi	37.3 kN/m

**Compression Set**

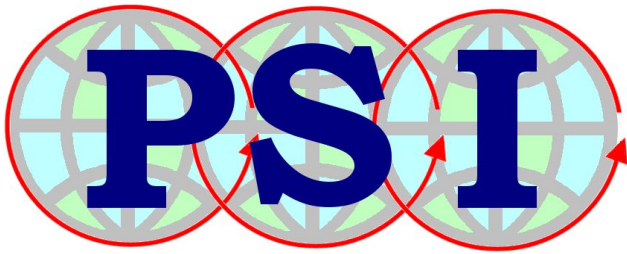
Solid: 22 hrs @ 212°F (100°C)	7.7 %
Solid: 70 hrs @ 257°F (125°C)	19.8 %
Plied: 22 hrs @ 212°F (100°C)	16.9 %
Change - Tensile Strength	- 22.0 %
Change - Elongation	+ 5.0 %

**HEAT AGED: 70 hrs @ 257°F (125°C)**

Change - Tensile Strength	+ 12.2 %
Change - Elongation	- 31.7 %
Change - Hardness, Shore A	+ 7

**HEAT AGED: 70 hrs @ 257°F (125°C) Test Tube Method**

Change - Tensile Strength	+ 12.2 %
Change - Elongation	- 31.7 %
Change - Hardness, Shore A	+ 7



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BLACK COLOR**PRODUCT DATA SHEET****DISTILLED WATER AGED: 70 hrs @ 212°F (100°C)**

Change - Tensile Strength	- 2.7 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	0
Change - Volume	+ 3.9 %

**ASTM REFERENCE FUEL A: 70 hrs @ RT (73°F, 23°C)**

Change - Tensile Strength	- 19.2 %
Change - Elongation	- 22.0 %
Change - Hardness, Shore A	- 3
Change - Volume	+ 4.2 %

**ASTM REFERENCE FUEL B: 70 hrs @ RT (73°F, 23°C)**

Change - Tensile Strength	- 47.6 %
Change - Elongation	- 48.7 %
Change - Hardness, Shore A	- 12
Change - Volume	+ 34.9 %

**ASTM REFERENCE FUEL C: 70 hrs @ RT (73°F, 23°C)**

Change - Tensile Strength	- 62.7 %
Change - Elongation	- 63.4 %
Change - Hardness, Shore A	- 14
Change - Volume	+ 64.2 %

**ASTM OIL #1: 70 hrs @ 212°F (100°C)**

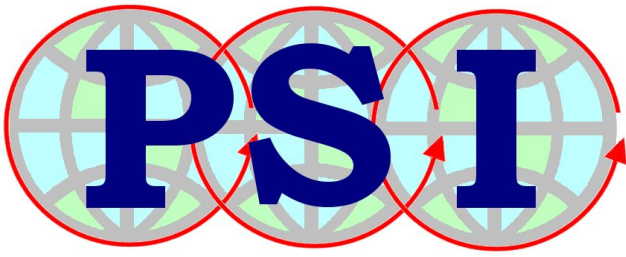
Change - Tensile Strength	+ 5.1 %
Change - Elongation	- 14.6 %
Change - Hardness, Shore A	+ 3
Change - Volume	- 6.0 %

**ASTM OIL #1: 70 hrs @ 257°F (125°C)**

Change - Tensile Strength	+ 15.5 %
Change - Elongation	- 24.4 %
Change - Hardness, Shore A	+ 3
Change - Volume	- 5.8 %

**ASTM OIL #1: 70 hrs @ 302°F (150°C)**

Change - Tensile Strength	- 8.1 %
Change - Elongation	- 31.7 %
Change - Hardness, Shore A	+ 4
Change - Volume	- 6.1 %



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**PRODUCT DATA SHEET**

**ASTM OIL #3: 70 hrs @ 212°F (100°C)**

Change - Tensile Strength	- 7.6 %
Change - Elongation	- 17.1 %
Change - Hardness, Shore A	- 6
Change - Volume	+ 14.0 %

**ASTM OIL #3: 70 hrs @ 257°F (125°C)**

Change - Tensile Strength	+ 2.8 %
Change - Elongation	- 14.6 %
Change - Hardness, Shore A	- 8
Change - Volume	+ 16.4 %

**ASTM OIL #3: 70 hrs @ 302°F (150°C)**

Change - Tensile Strength	- 3.9 %
Change - Elongation	- 17.1 %
Change - Hardness, Shore A	- 10
Change - Volume	+ 18.4 %

**Tear Resistance, Method D 624, Die B**

Tear Resistance	213.0 ppi
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