

Compound

3719**NITRILE - BUTADIENE
70 DUROMETER
BLACK GRAPHITE FILLED****PRODUCT DATA SHEET**

Compound 3719 is a 70 durometer black colored Buna N elastomer, it is formulated with graphite to provide internal lubrication. It exhibits good resistance to aliphatic fuels and compression set.

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

ASTM D2000 2 BF 712 B14 B34 EO14

2BG 712 B14 B34 EO14 EO34 EF11 EF21 EA14
5 BG 712 A14 B14 B34 EO14 EO342 CH 712 A25 B14 B34 EF31 EO15 EO35
3 CH 712 A25 B14 B34 EO36**Original Properties**

Modulus @ 100% Elongation	675 psi	4.7 MPa
Tensile Strength	1299 psi	9.0 MPa
Ultimate Elongation	380 %	
Hardness, Shore A	73 Durometer	
Specific Gravity	1.33 grams/cc	
Brittleness Temperature	-31 °F	-35 °C
Tear Resistance, Die B	208 ppi	36.4 kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	8.2 %
Plied: 22 hrs @ 212°F (100°C)	15.3 %

HEAT AGED: 70 hrs @ 212°F (100°C)

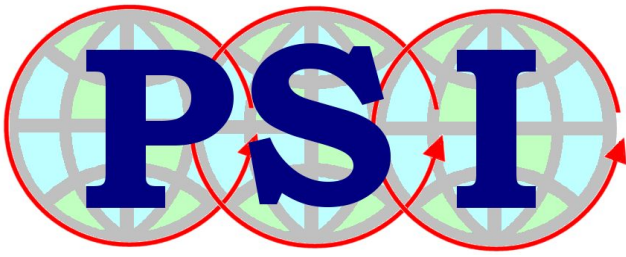
Change - Tensile Strength	+ 9.2 %
Change - Elongation	- 26.3 %
Change - Hardness, Shore A	+ 7

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 25.5 %
Change - Elongation	- 36.8 %
Change - Hardness, Shore A	+ 12

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

Change - Tensile Strength	+ 25.5 %
Change - Elongation	- 36.8 %
Change - Hardness, Shore A	+ 12



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Change - Hardness, Shore A	+ 1
Change - Volume	+ 4.4 %

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

Change - Tensile Strength	- 9.7 %
Change - Elongation	- 7.9 %
Change - Hardness, Shore A	0
Change - Volume	- 0.5 %

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

Change - Tensile Strength	- 30.2 %
Change - Elongation	- 23.7 %
Change - Hardness, Shore A	- 12
Change - Volume	+ 18.8 %

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

Change - Tensile Strength	- 48.1 %
Change - Elongation	- 39.5 %
Change - Hardness, Shore A	- 12
Change - Volume	+ 36.2 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

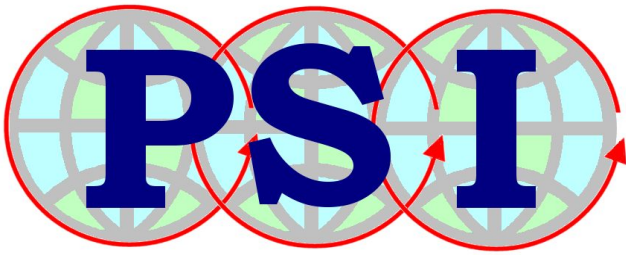
Change - Tensile Strength	+ 9.4 %
Change - Elongation	+ 28.9 %
Change - Hardness, Shore A	+ 8
Change - Volume	- 9.3 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 17.3 %
Change - Elongation	- 28.9 %
Change - Hardness, Shore A	+ 8
Change - Volume	- 10.1 %

ASTM OIL #1: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 17.9 %
Change - Elongation	- 31.6 %
Change - Hardness, Shore A	+ 11
Change - Volume	- 10.2 %



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PRODUCT DATA SHEET

ASTM OIL #3: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 6.8 %
Change - Elongation	- 7.9 %
Change - Hardness, Shore A	- 2
Change - Volume	+ 2.7 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 14.5 %
Change - Elongation	+ 10.5 %
Change - Hardness, Shore A	+ 1
Change - Volume	+ 2.8 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 10.5 %
Change - Elongation	- 26.3 %
Change - Hardness, Shore A	+ 11
Change - Volume	- 10.2 %

Tear Resistance, Method D 624, Die B

Tear Resistance	208.0 ppi
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