

Compound

5747**NITRILE-BUTADIENE
70 DUROMETER - BLACK
UL APPROVED****PRODUCT DATA SHEET**

Compound 5747 is a 70 durometer black colored Buna N. It is on the Underwriter Laboratories approved list for use with gasoline, kerosene, fuel oils, LP Gas, Naptha, maunufactured and natural gas, and anhydrous ammonia. This compound exhibits a good balance of properties. The working temperature range for this compound is -20°F to 212°F with intermitten peaks to 250°F.

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

ASTM D2000 2 BF 715 B14 B34
2 BG 715 B14 B34 EA14 EF11 EF21
5 BG 715 A14 B14 B34 EO14
4 BK 715 B14 B34 EF11 EF21

Original Properties

Modulus @ 100% Elongation	466 psi	3.2 MPa
Tensile Strength	1644 psi	11.3 MPa
Ultimate Elongation	360 %	
Hardness, Shore A	71 Durometer	
Specific Gravity	1.34 grams/cc	
Brittleness Temperature	-20 °F	-29 °C
Tear Resistance, Die B	236 ppi	41.3 kN/m
Tear Resistance, Die C	108 ppi	18.9 kN/m

Compression Set

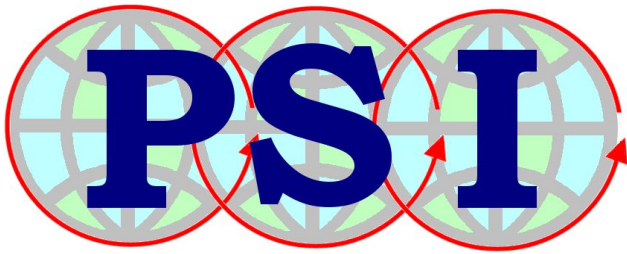
Solid: 22 hrs @ 212°F (100°C)	7.5 %
Solid: 22 hrs @ 257°F (125°C)	7.6 %
Solid: 70 hrs @ 212°F (100°C)	9.9 %
Plied: 22 hrs @ 212°F (100°C)	18.6 %
Plied: 22 hrs @ 257°F (125°C)	17.0 %
Plied: 70 hrs @ 212°F (100°C)	19.0 %

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	- 10.3 %
Change - Elongation	- 13.9 %
Change - Hardness, Shore A	+ 11

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 1.6 %
Change - Elongation	- 33.3 %
Change - Hardness, Shore A	+ 17



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Change - Tensile Strength	+ 1.6 %
Change - Elongation	- 33.3 %
Change - Hardness, Shore A	+ 17

DISTILLED WATER AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	- 13.0 %
Change - Elongation	- 16.7 %
Change - Hardness, Shore A	- 1
Change - Volume	+ 6.4 %

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

Change - Tensile Strength	- 4.2 %
Change - Elongation	- 1.1 %
Change - Volume	- 0.9 %

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

Change - Tensile Strength	- 40.0 %
Change - Elongation	- 13.9 %
Change - Hardness, Shore A	- 9
Change - Volume	+ 14.7 %

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

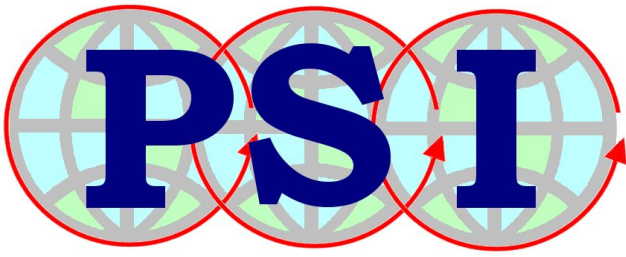
Change - Tensile Strength	- 40.8 %
Change - Elongation	- 13.9 %
Change - Hardness, Shore A	- 12
Change - Volume	+ 24.4 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 5.2 %
Change - Elongation	- 11.7 %
Change - Hardness, Shore A	+ 10
Change - Volume	- 7.4 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 6.4 %
Change - Elongation	- 30.6 %
Change - Hardness, Shore A	+ 16
Change - Volume	- 10.3 %



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Change - Tensile Strength	+ 26.6 %
Change - Elongation	- 55.6 %
Change - Hardness, Shore A	+ 19
Change - Volume	- 10.7 %

ASTM OIL #3: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 4.6 %
Change - Elongation	- 8.1 %
Change - Hardness, Shore A	+ 3
Change - Volume	- 1.7 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	- 3.3 %
Change - Elongation	- 25.0 %
Change - Hardness, Shore A	+ 8
Change - Volume	- 2.1 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 18.2 %
Change - Elongation	- 14.7 %
Change - Hardness, Shore A	+ 10
Change - Volume	- 1.5 %

LIQUID ANHYDROUS AMMONIA: Aged 70 hrs @ RT (23°C)

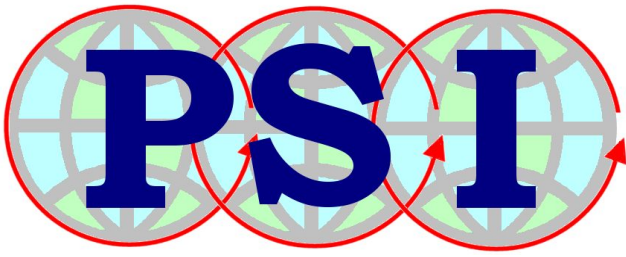
Change - Tensile Strength	- 34.2 %
Change - Elongation	- 25.0 %
Change - Volume	+ 4.6 %

HEXANE: Aged 70 hrs @ RT (70°F, 23°C)

Change - Tensile Strength	+ 8.8 %
Change - Elongation	- 17.9 %
Change - Volume	+ 2.2 %

METHANOL: Aged 70 hrs @ 148°F (65°C)

Change - Tensile Strength	- 4.3 %
Change - Elongation	- 9.5 %
Change - Hardness, Shore A	- 9
Change - Volume	+ 9.9 %



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MAPP GAS: Aged 168 hrs @ RT (70°F, 23°C)

Change - Tensile Strength	- 2.1 %
Change - Elongation	+ 4.8 %
Change - Hardness, Shore A	- 1
Change - Volume	+ 0.9 %

OXYGEN BOMB: Aged 96 hrs @ 158°F (70°C)

Change - Tensile Strength	- 10.0 %
Change - Elongation	- 7.1 %

TR-10 ASTM D1329 (10% Retraction @ °F)

Temperature	- 18.0 °F
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UNLEADED GAS (89 Octane): Aged 70 hrs @ RT (23°C)

Change - Tensile Strength	- 9.5 %
Change - Elongation	- 17.9 %
Change - Hardness, Shore A	- 10
Change - Volume	+ 9.9 %