



Compound

3944**NITRILE BUTADIENE
90 DUROMETER - BLACK
FDA SANCTIONED MAT'L.****PRODUCT DATA SHEET**

Compound 3944 is a 90 durometer black colored Buna N elastomer, it is formulated with FDA sanctioned materials. It exhibits good resistance to petroleum based oils and aliphatic fuels.

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

ASTM D2000 6 BG 915 A14 B14 B34 EO14
7 BG 915 B14 EA14 EF11 EF21

4 BK 915 B14 B34 EF11 EF21

21 CFR 177.2600

Original Properties

Modulus @ 100% Elongation	2338 psi	16.1 MPa
Tensile Strength	2597 psi	17.9 MPa
Ultimate Elongation	130 %	
Hardness, Shore A	88 Durometer	
Specific Gravity	1.28 grams/cc	
Brittleness Temperature	-13 °F	-25 °C
Tear Resistance, Die B	210 ppi	36.8 kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	10.3 %
Solid: 70 hrs @ 212°F (100°C)	18.8 %
Plied: 22 hrs @ 212°F (100°C)	21.8 %
Plied: 70 hrs @ 212°F (100°C)	33.0 %

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 3.9 %
Change - Elongation	- 38.5 %
Change - Hardness, Shore A	+ 4

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	- 3.0 %
Change - Elongation	- 46.2 %
Change - Hardness, Shore A	+ 7

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

Change - Tensile Strength	- 3.0 %
Change - Elongation	- 46.2 %
Change - Hardness, Shore A	+ 7



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Change - Hardness, Shore A	- 3
Change - Volume	+ 6.7 %

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

Change - Tensile Strength	+ 3.3 %
Change - Elongation	- 7.7 %
Change - Hardness, Shore A	+ 2
Change - Volume	- 0.6 %

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

Change - Tensile Strength	- 20.0 %
Change - Elongation	- 23.1 %
Change - Hardness, Shore A	- 7
Change - Volume	+ 15.8 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 8.0 %
Change - Elongation	- 7.7 %
Change - Hardness, Shore A	+ 6
Change - Volume	- 8.2 %

ASTM OIL #3: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 11.5 %
Change - Elongation	- 15.4 %
Change - Hardness, Shore A	+ 3
Change - Volume	- 1.8 %

Tear Resistance, Method D 624, Die B

Tear Resistance	210.0 ppi
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