



Compound

3744**NITRILE - BUTADIENE
70 DUROMETER - BLACK
FDA SANCTIONED MAT'L.****PRODUCT DATA SHEET**

Compound 3744 is a 70 durometer black colored Buna N elastomer, it is formulated with FDA sanctioned materials. It is USDA approved for contact with meat and poultry food products. It exhibits good resistance to petroleum based oils and is non - crazing on plastics.

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

ASTM D2000 2 BF 725 B14 B34 EO14 EO34
2 BG 725 B14 B34 EO14 EO34 EF11 EF21 EA14
3 BG 725 B14 EO14
4 BG 720 B14 EO14
5 BG 720 A14 B14 B34 EO14 EO34
2 CH 725 A25 B14 B34 EO35
3 CH 725 A25 B14 B34 EO36
5 CH 720 A25 B14 B34
6 CH 720 A25 B14 B34 EO36

CFR 21 177.2600

Original Properties

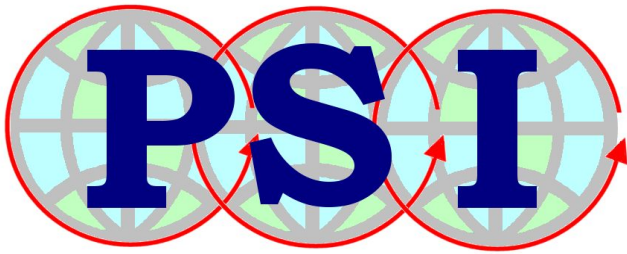
Modulus @ 100% Elongation	439 psi	3.0 MPa
Tensile Strength	2683 psi	18.5 MPa
Ultimate Elongation	430 %	
Hardness, Shore A	73 Durometer	
Specific Gravity	1.18 grams/cc	
Brittleness Temperature	-17 °F	-27 °C
Tear Resistance, Die B	215 ppi	37.7 kN/m
Tear Resistance, Die C	236 ppi	41.3 kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	6.5 %
Solid: 22 hrs @ 257°F (125°C)	9.1 %
Solid: 70 hrs @ 212°F (100°C)	9.4 %
Plied: 22 hrs @ 212°F (100°C)	12.1 %
Plied: 22 hrs @ 257°F (125°C)	15.8 %
Plied: 70 hrs @ 212°F (100°C)	17.7 %

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 11.8 %
Change - Elongation	- 9.3 %
Change - Hardness, Shore A	+ 2



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Change - Tensile Strength	+ 11.4 %
Change - Elongation	- 25.6 %
Change - Hardness, Shore A	+ 4

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

Change - Tensile Strength	+ 11.4 %
Change - Elongation	- 25.6 %
Change - Hardness, Shore A	+ 4

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

Change - Hardness, Shore A	- 4
Change - Volume	+ 3.3 %

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

Change - Tensile Strength	+ 4.7 %
Change - Elongation	- 4.3 %
Change - Hardness, Shore A	+ 1
Change - Volume	+ 0.8 %

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

Change - Tensile Strength	- 32.7 %
Change - Elongation	- 31.9 %
Change - Hardness, Shore A	- 14
Change - Volume	+ 30.5 %

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

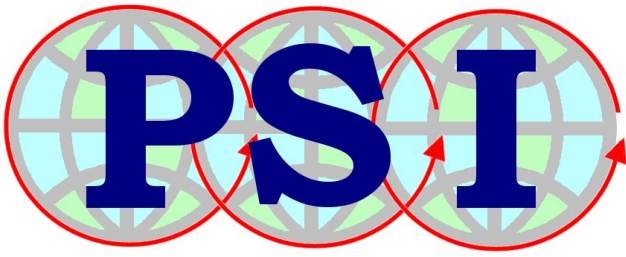
Change - Tensile Strength	- 52.6 %
Change - Elongation	- 55.3 %
Change - Hardness, Shore A	- 13
Change - Volume	+ 52.1 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 16.6 %
Change - Elongation	- 8.5 %
Change - Hardness, Shore A	- 1
Change - Volume	- 0.6 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 13.5 %
Change - Elongation	- 9.3 %
Change - Hardness, Shore A	0
Change - Volume	- 0.5 %



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ASTM OIL #1: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 15.8 %
Change - Elongation	- 12.8 %
Change - Hardness, Shore A	+ 2
Change - Volume	- 0.8 %

ASTM OIL #3: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 2.7 %
Change - Elongation	- 10.6 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 9.8 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	- 4.2 %
Change - Elongation	- 11.6 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 11.5 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 11.0 %
Change - Elongation	- 10.6 %
Change - Hardness, Shore A	- 5
Change - Volume	+ 12.7 %