

Compound

3644**NITRILE - BUTADIENE
60 DUROMETER- BLACK
FDA SANCTIONED MAT'L.****PRODUCT DATA SHEET**

Compound 3644 is a 60 durometer black colored Buna N elastomer, it is formulated with FDA sanctioned materials. It has very high tensile strength. It exhibits very good resistance to heat, compression set and petroleum based oils.

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

ASTM D2000 2 BF 625 B14 B34 EO14 EO34
2 BG 625 B14 B34 EO14 EO34 EF11 EF21 EA14
3 BG 620 B14 EO14
4 BG 620 A14 B14 EO14
5 BG 620 A14 B14 B34 EO14 EO34
2 CH 625 A25 B14 B34 EO15 EO35
3 CH 625 A25 B14 B34 EO16 EO36
5 CH 615 A25 B14 B34 F14
6 CH 615 A25 B14 B34

Original Properties

Modulus @ 100% Elongation	312 psi	2.2 MPa
Tensile Strength	2703 psi	18.6 MPa
Ultimate Elongation	528 %	
Hardness, Shore A	65 Durometer	
Specific Gravity	1.16 grams/cc	
Brittleness Temperature	-28 °F	-33 °C
Tear Resistance, Die B	212 ppi	37.1 kN/m
Tear Resistance, Die C	221 ppi	38.7 kN/m

Compression Set

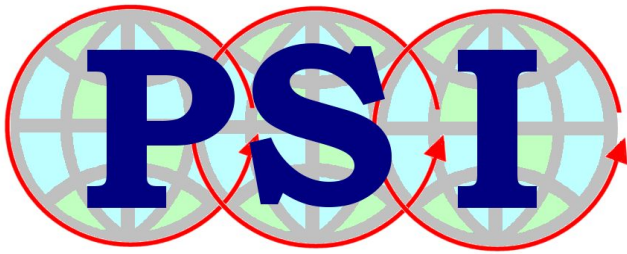
Solid: 22 hrs @ 212°F (100°C)	6.9 %
Solid: 22 hrs @ 257°F (125°C)	9.8 %
Solid: 70 hrs @ 212°F (100°C)	10.3 %
Plied: 22 hrs @ 212°F (100°C)	15.1 %
Plied: 22 hrs @ 257°F (125°C)	18.5 %
Plied: 70 hrs @ 212°F (100°C)	19.9 %

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 6.7 %
Change - Elongation	+ 6.7 %
Change - Hardness, Shore A	+ 2

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 2.2 %
Change - Elongation	- 26.7 %
Change - Hardness, Shore A	+ 3



Compound

3644NITRILE - BUTADIENE
60 DUROMETER- BLACK
FDA SANCTIONED MAT'L.**PRODUCT DATA SHEET****HEAT AGED: 70 hrs @ 257°F (125°C) Test Tube Method**

Change - Tensile Strength	+ 2.2 %
Change - Elongation	- 26.7 %
Change - Hardness, Shore A	+ 3

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

Change - Hardness, Shore A	- 1
Change - Volume	+ 3.9 %

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

Change - Tensile Strength	- 5.4 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	0
Change - Volume	+ 1.4 %

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

Change - Tensile Strength	- 52.8 %
Change - Elongation	- 36.3 %
Change - Hardness, Shore A	- 10
Change - Volume	+ 33.6 %

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

Change - Tensile Strength	- 69.8 %
Change - Elongation	- 55.7 %
Change - Hardness, Shore A	- 15
Change - Volume	+ 55.8 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

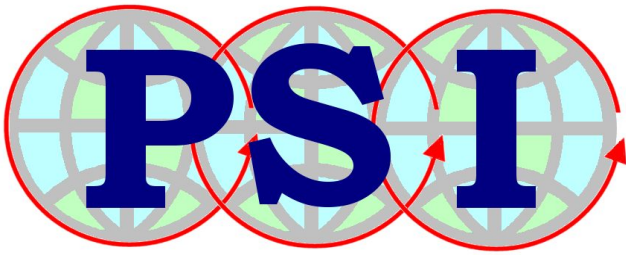
Change - Tensile Strength	+ 2.1 %
Change - Elongation	- 5.9 %
Change - Hardness, Shore A	0
Change - Volume	- 0.7 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 11.2 %
Change - Elongation	- 9.2 %
Change - Hardness, Shore A	0
Change - Volume	- 0.7 %

ASTM OIL #1: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	- 5.6 %
Change - Elongation	- 19.7 %
Change - Hardness, Shore A	0
Change - Volume	- 0.6 %



Compound

3644

NITRILE - BUTADIENE
60 DUROMETER- BLACK
FDA SANCTIONED MAT'L.

PRODUCT DATA SHEET

ASTM OIL #3: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	- 8.3 %
Change - Elongation	- 8.9 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 12.1 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	- 12.5 %
Change - Elongation	+ 16.5 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 14.4 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	- 16.8 %
Change - Elongation	- 22.2 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 14.9 %