

Compound

3741

NITRILE - BUTADIENE
70 DUROMETER - BLACK COLOR
FDA SANCTIONED MATERIAL

PRODUCT DATA SHEET

Compound 3741 is a 70 durometer black colored Buna N elastomer, it is formulated with FDA sanctioned materials. It is also suitable for use in milk and edible oils.

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

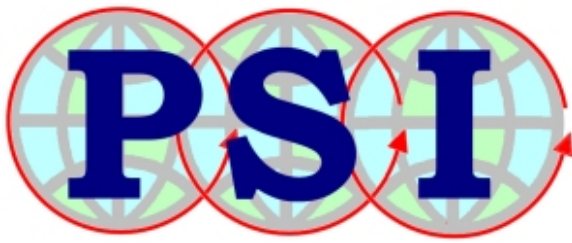
ASTM D2000 2 BF 715 B14 B34 EO14 EO34
2 BG 715 B14 B34 EO14 EO34 EA14 EF11 EF21
5 BG 715 A14 B14 B34 EO14 EO34
4 BK 715 A24 B14 B34 EF11 EO14 EO34
2 CH 715 A25 B14 B34 EO15 EO35 EF31
3 CH 715 A25 B14 B34 EO16 EO36

3-A Sanitary Standards 18-03 Class III & IV
CFR 21 177.2600



Original Properties

Modulus @ 100% Elongation	386 psi	2.7 MPa
Tensile Strength	1,510 psi	10.4 MPa
Ultimate Elongation	425 %	
Hardness, Shore A	73 Durometer	
Specific Gravity	1.23 grams/cc	
Brittleness Temperature	-8 °F	-22 °C
TR-10 Temperature	-11 °F	-24 °C
Tear Resistance, Die B	182.0 ppi	31.9 kN/m
Tear Resistance, Die C	233.0 ppi	40.8 kN/m



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Solid: 22 hrs @ 212°F (100°C)	7.3 %
Solid: 22 hrs @ 257°F (125°C)	10.3 %
Solid: 22 hrs @ 302°F (150°C)	24.9 %
Solid: 70 hrs @ 212°F (100°C)	11.8 %
Plid: 22 hrs @ 212°F (100°C)	13.7 %
Plid: 22 hrs @ 257°F (125°C)	17.3 %
Plid: 22 hrs @ 302°F (150°C)	31.3 %
Plid: 70 hrs @ 212°F (100°C)	20.5 %

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 8.1 %
Change - Elongation	- 5.4 %
Change - Hardness, Shore A	+ 3

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 16.8 %
Change - Elongation	- 7.5 %
Change - Hardness, Shore A	+ 9

HEAT AGED: 70 hrs @ 302°F (150°C)

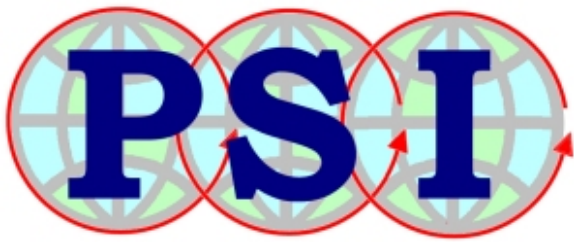
Change - Tensile Strength	- 49.1 %
Change - Elongation	- 87.1 %
Change - Hardness, Shore A	+ 14

HEAT AGED: 70 hrs @ 212°F (100°C) Test Tube

Change - Tensile Strength	+ 8.1 %
Change - Elongation	- 5.4 %
Change - Hardness, Shore A	+ 3

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

Change - Tensile Strength	+ 16.8 %
Change - Elongation	- 7.5 %
Change - Hardness, Shore A	+ 9



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Change - Hardness, Shore A	- 5
Change - Volume	+ 10.9 %

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

Change - Tensile Strength	+ 12.3 %
Change - Elongation	+ 14.4 %
Change - Hardness, Shore A	- 1
Change - Volume	+ 1.9 %

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

Change - Tensile Strength	- 37.4 %
Change - Elongation	- 25.9 %
Change - Hardness, Shore A	- 13
Change - Volume	+ 25.1 %

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

Change - Tensile Strength	- 53.8 %
Change - Elongation	- 40.9 %
Change - Hardness, Shore A	- 15
Change - Volume	+ 42.0 %

ASTM OIL #1 (IRM 901): 70 hrs @ 212°F (100°C)

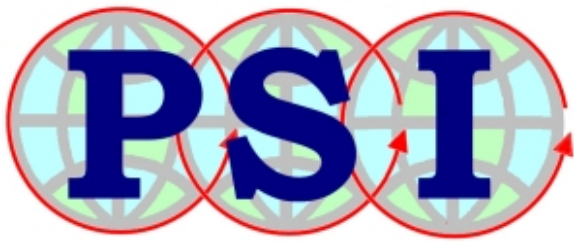
Change - Tensile Strength	+ 15.0 %
Change - Elongation	+ 5.4 %
Change - Hardness, Shore A	+ 2
Change - Volume	- 5.0 %

ASTM OIL #1 (IRM 901): 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 23.6 %
Change - Elongation	+ 4.9 %
Change - Hardness, Shore A	+ 1
Change - Volume	- 5.4 %

ASTM OIL #1 (IRM 901): 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 3.1 %
Change - Elongation	- 11.5 %
Change - Hardness, Shore A	+ 2
Change - Volume	- 5.3 %



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ASTM OIL #3 (IRM 903): 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 20.9 %
Change - Elongation	+ 8.9 %
Change - Hardness, Shore A	- 5
Change - Volume	+ 3.6 %

ASTM OIL #3 (IRM 903): 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 29.5 %
Change - Elongation	+ 12.7 %
Change - Hardness, Shore A	- 5
Change - Volume	+ 4.3 %

ASTM OIL #3 (IRM 903): 70 hrs @ 302°F (150°C)

Change - Tensile Strength	- 31.1 %
Change - Elongation	- 29.6 %
Change - Hardness, Shore A	- 6
Change - Volume	+ 5.5 %