Compound

3716

NITRILE - BUTADIENE
70 DUROMETER
BLACK - LOW TEMP.

PRODUCT DATA SHEET

Compound 3716 is a 70 durometer black colored Buna N elastomer, it is formulated for its excellent low temperature flexibility. It has good resistance to heat, compression set, petroleum based oils and hot water.

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

ASTM D2000 2 BF 720 B14 B34 EO14 EO34 F19

2 BG 720 B14 B34 EA14 EF11 EF21 EO14 EO34 F17
3 BG 720 B14 EO34 F19
4 BG 720 B14 F19
5 BG 720 A14 B14 B34 EO14 EO34 F19

2 CH 720 A25 B14 B34 EO35 F17
3 CH 720 A25 B14 B34 EO36
5 CH 720 B14 B34 EO36 F14
6 CH 720 B14 B34 EO36 F17

MIL-STD-417 Type S Class SB 720 A1 B1 E1 E3 F2

Original Properties

Modulus @ 100% Elongation	632	psi	4.4	MPa
Tensile Strength	2195	psi	15.1	MPa
Ultimate Elongation	281	%		
Hardness, Shore A	73	Durometer		
Specific Gravity	1.22	grams/cc		
Brittleness Temperature	-81	°F	-63	°C
Tear Resistance, Die B	234	ppi	41.0	kN/m
Tear Resistance, Die C	181	ppi	31.7	kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	7.4	%
Solid: 22 hrs @ 257°F (125°C)	11.3	%
Solid: 70 hrs @ 212°F (100°C)	11.3	%
Plied: 22 hrs @ 212°F (100°C)	13.5	%
Plied: 22 hrs @ 257°F (125°C)	18.8	%
Plied: 70 hrs @ 212°F (100°C)	20.4	%

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 0.2 %
Change - Elongation	- 28.0 %
Change - Hardness, Shore A	+ 6

Presure Seals, Inc.
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South Windsor, CT 06074
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www.PressureSeal.com

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HEAT AGED: 70 hrs @ 257°F (125°C)	
Change - Tensile Strength	+ 5.4 %
Change - Elongation	- 32.6 %
Change - Hardness, Shore A	+ 11

HEAT AGED: 70 hrs @ 257°F (125°C) Test Tube Method	
Change - Tensile Strength	+ 5.4 %
Change - Elongation	- 32.6 %
Change - Hardness, Shore A	+ 11

DISTILLED WATER AGED: 70 hrs @ 212°F (100°C)	
Change - Hardness, Shore A	- 1
Change - Volume	+ 2.9 %

ASTM REFERENCE FUEL A: 70 hrs @ RT (73°F, 23°C)	
Change - Tensile Strength	- 16.3 %
Change - Elongation	- 17.4 %
Change - Hardness, Shore A	- 3
Change - Volume	+ 4.3 %

ASTM REFERENCE FUEL B: 70 hrs @ RT (73°F, 23°C)	
Change - Tensile Strength	- 41.0 %
Change - Elongation	- 39.0 %
Change - Hardness, Shore A	- 10
Change - Volume	+ 32.7 %

ASTM REFERENCE FUEL C: 70 hrs @ RT (73°F, 23°C)	
Change - Tensile Strength	- 52.8 %
Change - Elongation	- 48.6 %
Change - Hardness, Shore A	- 14
Change - Volume	+ 62.3 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)	
Change - Tensile Strength	+ 3.9 %
Change - Elongation	- 7.1 %
Change - Hardness, Shore A	+ 3
Change - Volume	- 8.6 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)	
Change - Tensile Strength	- 1.2 %
Change - Elongation	+ 7.1 %
Change - Hardness, Shore A	+ 12
Change - Volume	- 7.8 %

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ASTM OIL #1: 70 hrs @ 302°F (150°C)	
Change - Tensile Strength	- 3.1 %
Change - Elongation	- 28.4 %
Change - Hardness, Shore A	+ 14
Change - Volume	- 8.2 %

ASTM OIL #3: 70 hrs @ 212°F (100°C)	
Change - Tensile Strength	+ 1.6 %
Change - Elongation	- 9.2 %
Change - Hardness, Shore A	- 6
Change - Volume	+ 17.9 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)	
Change - Tensile Strength	- 2.3 %
Change - Elongation	+ 5.3 %
Change - Hardness, Shore A	+ 5
Change - Volume	+ 0.7 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)	
Change - Tensile Strength	- 11.3 %
Change - Elongation	- 10.6 %
Change - Hardness, Shore A	+ 6
Change - Volume	+ 1.4 %

TR-10 ASTM D1329 (10% Retraction @ °F)	
Temperature	- 50.0 °F

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