

Compound

**3720****NITRILE - BUTADIENE  
70 DUROMETER  
BLACK- HOT OIL RESIST.****PRODUCT DATA SHEET**

Compound 3720 is a 70 durometer black colored Buna N elastomer, it is specifically formulated for resistance to hot petroleum based oils and dry heat. It exhibits very good resistance to compression set and hot water, and is recommended for low temperature service where fuel resistance is required. This compound is peroxide cured.

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

ASTM D2000 2 BF 720 B14 B34 EO14 EO34

2 BG 720 B14 B34 EO14 EO34 EF11 EF21 EA14 F17

3 BG 720 B14 EO14

4 BG 720 A14 B14 EO14

5 BG 720 A14 B14 B34 EO14 EO34

2 CH 720 A25 B14 B34 EO15 F17

3 CH 720 A25 B14 B34 EO16

5 CH 720 A25 B14 B34 F14

6 CH 720 A25 B14 B34 F17

SAE J 120 R1 C1.I

AMS 7270

**Original Properties**

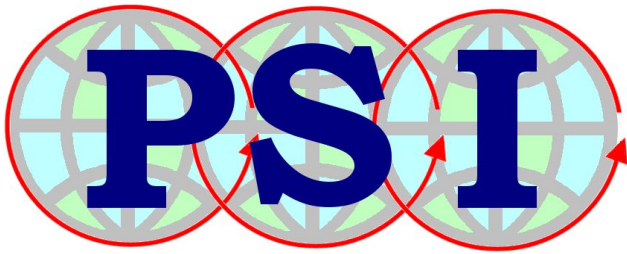
Modulus @ 100% Elongation	712 psi	4.9 MPa
Tensile Strength	2319 psi	16.0 MPa
Ultimate Elongation	277 %	
Hardness, Shore A	74 Durometer	
Specific Gravity	1.19 grams/cc	
Brittleness Temperature	-50 °F	-46 °C
Tear Resistance, Die B	160 ppi	28.0 kN/m
Tear Resistance, Die C	151 ppi	26.4 kN/m

**Compression Set**

Solid: 22 hrs @ 212°F (100°C)	4.7 %
Solid: 22 hrs @ 257°F (125°C)	9.0 %
Solid: 70 hrs @ 212°F (100°C)	8.6 %
Solid: 70 hrs @ 257°F (125°C)	13.8 %
Plied: 22 hrs @ 212°F (100°C)	9.3 %

**HEAT AGED: 70 hrs @ 212°F (100°C)**

Change - Tensile Strength	+ 4.0 %
Change - Elongation	- 16.2 %
Change - Hardness, Shore A	+ 2



Compound

**3720**NITRILE - BUTADIENE  
70 DUROMETER  
BLACK- HOT OIL RESIST.**PRODUCT DATA SHEET****HEAT AGED: 70 hrs @ 257°F (125°C)**

Change - Tensile Strength	+ 9.7 %
Change - Elongation	- 22.4 %
Change - Hardness, Shore A	+ 6

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

Change - Tensile Strength	+ 9.7 %
Change - Elongation	- 22.4 %
Change - Hardness, Shore A	+ 6

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

Change - Hardness, Shore A	- 4
Change - Volume	+ 1.9 %

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

Change - Tensile Strength	- 1.9 %
Change - Elongation	- 9.0 %
Change - Hardness, Shore A	- 2
Change - Volume	+ 2.8 %

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

Change - Tensile Strength	- 38.9 %
Change - Elongation	- 43.0 %
Change - Hardness, Shore A	- 10
Change - Volume	+ 36.1 %

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

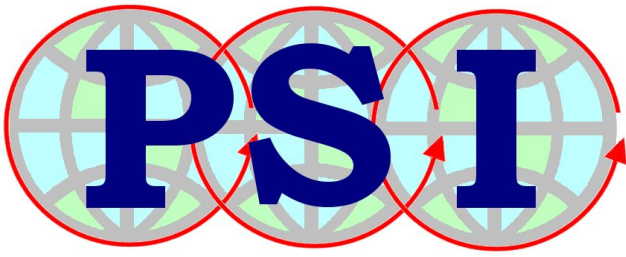
Change - Tensile Strength	- 52.4 %
Change - Elongation	- 50.2 %
Change - Hardness, Shore A	- 11
Change - Volume	+ 63.7 %

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

Change - Tensile Strength	+ 5.3 %
Change - Elongation	- 15.9 %
Change - Hardness, Shore A	0
Change - Volume	- 2.9 %

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

Change - Tensile Strength	+ 5.1 %
Change - Elongation	- 1.4 %
Change - Hardness, Shore A	0
Change - Volume	- 2.2 %



Compound

**3720**

NITRILE - BUTADIENE  
70 DUROMETER  
BLACK- HOT OIL RESIST.

**PRODUCT DATA SHEET**

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

Change - Tensile Strength	+ 16.9 %
Change - Elongation	- 26.6 %
Change - Hardness, Shore A	0
Change - Volume	- 2.8 %

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

Change - Tensile Strength	- 2.7 %
Change - Elongation	- 16.2 %
Change - Hardness, Shore A	- 3
Change - Volume	+ 12.0 %

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

Change - Tensile Strength	- 20.9 %
Change - Elongation	- 24.5 %
Change - Hardness, Shore A	- 7
Change - Volume	+ 15.0 %

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

Change - Tensile Strength	- 22.5 %
Change - Elongation	- 39.0 %
Change - Hardness, Shore A	- 5
Change - Volume	+ 14.7 %