



Compound

**55715****HIGHLY SATURATED  
NITRILE - 70 DURO  
BLACK - HEAT RESIST.****PRODUCT DATA SHEET**

Compound 55715 is a 70 durometer black colored Highly Saturated Nitrile, it is formulated for high temperature applications. It exhibits good resistance to petroleum based oils, aliphatic and aromatic based fuels.

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 EF11 EF21 EO14 EO34  
3 BG 725 B14 EO14  
4 BG 725 A14 B14 EO14  
5 BG 725 A14 B14 B34 EO14 EO34

4 BK 725 A14 B14 B34 EF11 EO14

2 CH 725 A25 B14 B34 EO15 EO35 F17  
3 CH 725 A25 B14 B34 EO16 EO36  
5 CH 720 A25 B14 B34  
6 CH 720 A25 B14 B34

4 DH 723 A26 B16 B36 E016 EO36 F17  
3 DH 715 A26 B16 B36 EO16 EO36 F13  
5 DH 709 A26 B16 EO16 EO36 F13

**Original Properties**

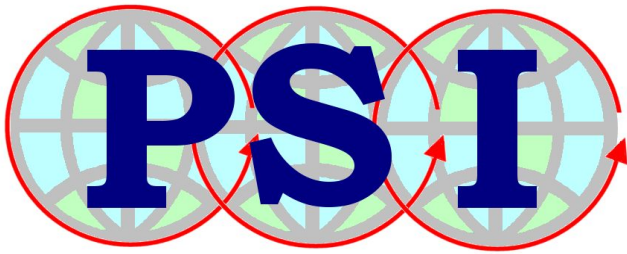
Modulus @ 100% Elongation	674 psi	4.7 MPa
Tensile Strength	2912 psi	20.1 MPa
Ultimate Elongation	321 %	
Hardness, Shore A	73 Durometer	
Specific Gravity	1.20 grams/cc	
Brittleness Temperature	-82 °F	-63 °C
Tear Resistance, Die B	163 ppi	5.0 kN/m

**Compression Set**

Solid: 22 hrs @ 212°F (100°C)	5.0 %
Solid: 70 hrs @ 212°F (100°C)	7.9 %
Solid: 70 hrs @ 257°F (125°C)	12.2 %
Solid: 70 hrs @ 302°F (150°C)	20.5 %
Solid: 70 hrs @ 347°F (175°C)	31.5 %
Plied: 22 hrs @ 212°F (100°C)	6.2 %

**HEAT AGED: 70 hrs @ 212°F (100°C)**

Change - Tensile Strength	+ 5.2 %
Change - Elongation	- 2.5 %
Change - Hardness, Shore A	0



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Change - Tensile Strength	+ 1.4 %
Change - Elongation	- 10.3 %
Change - Hardness, Shore A	+ 5

**HEAT AGED: 70 hrs @ 302°F (150°C)**

Change - Tensile Strength	+ 8.1 %
Change - Elongation	- 30.5 %
Change - Hardness, Shore A	+ 10

**HEAT AGED: 70 hrs @ 347°F (175°C)**

Change - Tensile Strength	- 5.7 %
Change - Elongation	- 61.4 %
Change - Hardness, Shore A	+ 14

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

Change - Tensile Strength	+ 1.4 %
Change - Elongation	- 10.3 %
Change - Hardness, Shore A	+ 5

**HEAT AGED: 70 hrs @ 302°F (150°C) Test Tube Method**

Change - Tensile Strength	+ 8.1 %
Change - Elongation	- 30.5 %
Change - Hardness, Shore A	+ 10

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

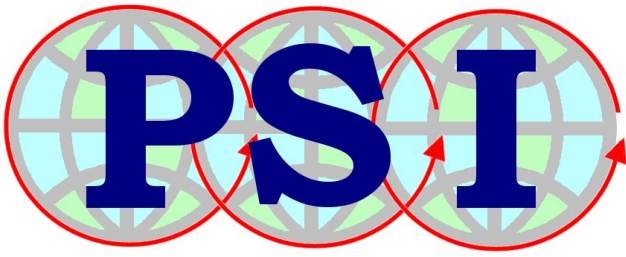
Change - Tensile Strength	- 2.6 %
Change - Elongation	- 7.8 %
Change - Hardness, Shore A	0
Change - Volume	+ 1.3 %

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

Change - Tensile Strength	- 37.5 %
Change - Elongation	- 39.3 %
Change - Hardness, Shore A	- 13
Change - Volume	+ 30.0 %

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

Change - Tensile Strength	- 47.2 %
Change - Elongation	- 48.6 %
Change - Hardness, Shore A	- 15
Change - Volume	+ 51.5 %



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

Change - Tensile Strength	+ 7.8 %
Change - Elongation	+ 5.3 %
Change - Hardness, Shore A	+ 1
Change - Volume	- 4.6 %

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

Change - Tensile Strength	+ 7.4 %
Change - Elongation	- 5.6 %
Change - Hardness, Shore A	+ 3
Change - Volume	- 4.5 %

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

Change - Tensile Strength	- 1.5 %
Change - Elongation	- 4.4 %
Change - Hardness, Shore A	- 5
Change - Volume	+ 11.1 %

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

Change - Tensile Strength	+ 4.5 %
Change - Elongation	+ 4.4 %
Change - Hardness, Shore A	- 6
Change - Volume	+ 12.4 %

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

Temperature	- 32.6 °F
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