

Compound

5805**NITRILE - BUTADIENE
80 DUROMETER - BLACK
LOW OIL & FUEL SWELL****PRODUCT DATA SHEET**

Compound 5805 is an 80 durometer black colored general purpose Buna N elastomer. It exhibits very good resistance to petroleum based oils, aliphatic and aromatic fuels.

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

ASTM D2000 2 BF 814 B14 EO14 EO34

6 BG 814 A14 B14 EO14 EO34

7 BG 814 B14 EO14 EO34 EF11 EF21 EA14

Original Properties

Modulus @ 100% Elongation	1073 psi	7.4 MPa
Tensile Strength	1778 psi	12.3 MPa
Ultimate Elongation	200 %	
Hardness, Shore A	79 Durometer	
Specific Gravity	1.36 grams/cc	
Brittleness Temperature	-22 °F	-30 °C
Tear Resistance, Die B	213 ppi	37.3 kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	8.1 %
Plied: 22 hrs @ 212°F (100°C)	29.3 %

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 4.0 %
Change - Elongation	- 30.0 %
Change - Hardness, Shore A	+ 8

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	- 15.6 %
Change - Elongation	- 80.0 %
Change - Hardness, Shore A	+ 16

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

Change - Tensile Strength	- 15.6 %
Change - Elongation	- 80.0 %
Change - Hardness, Shore A	+ 16

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

Change - Hardness, Shore A	- 3
Change - Volume	+ 4.6 %



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Change - Tensile Strength	+ 1.0 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	0
Change - Volume	- 0.2 %

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

Change - Tensile Strength	- 19.2 %
Change - Elongation	- 25.0 %
Change - Hardness, Shore A	- 10
Change - Volume	+ 13.6 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 4.3 %
Change - Elongation	- 30.0 %
Change - Hardness, Shore A	+ 9
Change - Volume	- 9.4 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 5.7 %
Change - Elongation	- 50.0 %
Change - Hardness, Shore A	+ 13
Change - Volume	- 9.7 %

ASTM OIL #1: 70 hrs @ 302°F (150°C)

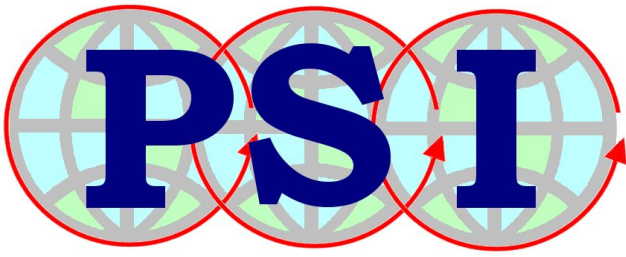
Change - Tensile Strength	- 7.4 %
Change - Elongation	- 40.0 %
Change - Hardness, Shore A	+ 12
Change - Volume	- 10.4 %

ASTM OIL #3: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 8.3 %
Change - Elongation	- 15.0 %
Change - Hardness, Shore A	+ 1
Change - Volume	+ 0.1 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 10.9 %
Change - Elongation	- 35.0 %
Change - Hardness, Shore A	+ 3
Change - Volume	+ 1.0 %



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ASTM OIL #3: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 1.5 %
Change - Elongation	- 30.0 %
Change - Hardness, Shore A	+ 3
Change - Volume	+ 0.9 %

Tear Resistance, Method D 624, Die B

Tear Resistance	213.0 ppi
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