

Compound

9809**FLUORINATED
HYDROCARBON 80 DURO
BLACK-GASOHOL RESIST.****PRODUCT DATA SHEET**

Compound 9809 is an 80 durometer, high fluorine content, black colored Fluorinated Hydrocarbon elastomer. It is formulated for applications requiring very high chemical resistance, particularly for use in alcohol extended fuels. It exhibits excellent resistance to heat, 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 HK 815 A1-10 B37 B38 EF31 EO78
4 HK 815 B38 EF31 EO78
6 HK 815 A1-10 EF31 EO88

Original Properties

Modulus @ 100% Elongation	741 psi	5.1 MPa
Tensile Strength	1901 psi	13.1 MPa
Ultimate Elongation	250 %	
Hardness, Shore A	79 Durometer	
Specific Gravity	1.90 grams/cc	
Brittleness Temperature	19 °F	-7 °C
Tear Resistance, Die B	244 ppi	42.7 kN/m

Compression Set

Plied: 22 hrs @ RT (73°F, 23°C)	20.3 %
Plied: 22 hrs @ 347°F (175°C)	14.5 %
Plied: 22 hrs @ 392°F (200°C)	18.4 %

HEAT AGED: 70 hrs @ 482°F (250°C)

Change - Tensile Strength	- 3.8 %
Change - Elongation	+ 4.0 %
Change - Hardness, Shore A	+ 2

HEAT AGED: 70 hrs @ 527°F (275°C)

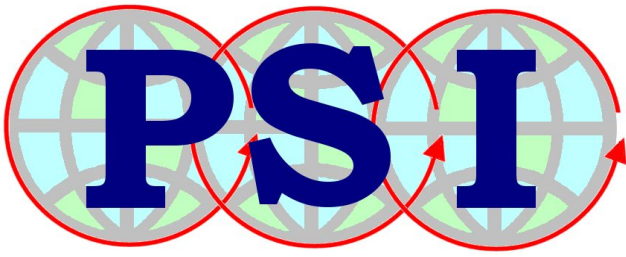
Change - Tensile Strength	- 48.0 %
Change - Elongation	+ 36.0 %
Change - Hardness, Shore A	+ 3

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

Change - Hardness, Shore A	0
Change - Volume	+ 3.7 %

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

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



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Change - Tensile Strength	- 10.8 %
Change - Elongation	+ 4.0 %
Change - Hardness, Shore A	0
Change - Volume	+ 0.9 %

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

Change - Tensile Strength	- 7.6 %
Change - Elongation	+ 4.0 %
Change - Hardness, Shore A	0
Change - Volume	+ 1.4 %

ASTM OIL #1: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	- 13.9 %
Change - Elongation	+ 4.0 %
Change - Hardness, Shore A	- 1
Change - Volume	+ 0.4 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	- 15.3 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	- 1
Change - Volume	+ 1.5 %

SERVICE FLUID 101: 70 hrs @ 392°F (200°C)

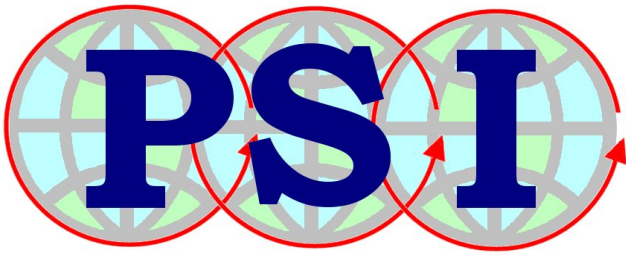
Change - Tensile Strength	- 21.5 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	- 6
Change - Volume	+ 6.4 %

STAUFFER BLEND 7700: 70 hrs @ 392°F (200°C)

Change - Tensile Strength	- 23.9 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	- 8
Change - Volume	+ 8.1 %

GASAHOL 70 hrs @ RT (70°F, 23°C)

Change - Tensile Strength	- 31.9 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 7.9 %



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TOLUENE: Aged 70 hrs @ RT (70°F, 23°C)

Change - Tensile Strength	- 16.4 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 3.5 %