



Compound  
**9646**  
FLUORINATED HYDROCARBON  
60 DUROMETER  
BLACK COLOR

**PRODUCT DATA SHEET**

Compound 9646 is a 60 durometer black colored Fluorinated Hydrocarbon elastomer. It exhibits excellent resistance to heat, compression set, 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 615 A1-10 B37 B38 EF31 EO78 F15  
4 HK 615 A1-11 B38 EF31 EO78  
6 HK 615 A1-10 A1-11 B31 B38 EF31 EO88 F15

**This Compound is RoHS Compliant**



**Original Properties**

Modulus @ 100% Elongation	252 psi	1.7 MPa
Tensile Strength	1,510 psi	10.4 MPa
Ultimate Elongation	347 %	
Hardness, Shore A	65 Durometer	
Specific Gravity	1.88 grams/cc	
Brittleness Temperature	-13 °F	-25 °C
TR-10 Temperature	-1 °F	-18 °C
Tear Resistance, Die B	139 ppi	24.3 kN/m

**Compression Set**

Plied: 22 hrs @ RT (73°F, 23°C)	10.5 %
Plied: 22 hrs @ 347°F (175°C)	8.4 %
Plied: 22 hrs @ 392°F (200°C)	12.4 %

**HEAT AGED: 70 hrs @ 482°F (250°C)**

Change - Tensile Strength	+ 10.0 %
Change - Elongation	0.0 %
Change - Hardness, Shore A	0

**HEAT AGED: 70 hrs @ 527°F (275°C)**

Change - Tensile Strength	- 17.5 %
Change - Elongation	+ 3.2 %
Change - Hardness, Shore A	+ 2



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Change - Hardness, Shore A	- 1
Change - Volume	+ 4.6 %

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

Change - Tensile Strength	- 0.5 %
Change - Elongation	- 6.4 %
Change - Hardness, Shore A	0
Change - Volume	+ 0.2 %

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

Change - Tensile Strength	- 21.1 %
Change - Elongation	- 16.1 %
Change - Hardness, Shore A	- 4
Change - Volume	+ 3.9 %

**ASTM OIL #1 (IRM 901): 70 hrs @ 302°F (150°C)**

Change - Tensile Strength	+ 4.0 %
Change - Elongation	+ 9.7 %
Change - Hardness, Shore A	- 1
Change - Volume	+ 0.4 %

**ASTM OIL #3 (IRM 903): 70 hrs @ 302°F (150°C)**

Change - Tensile Strength	+ 4.7 %
Change - Elongation	+ 3.2 %
Change - Hardness, Shore A	- 2
Change - Volume	+ 1.8 %

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

Change - Tensile Strength	- 10.9 %
Change - Elongation	+ 3.2 %
Change - Hardness, Shore A	- 6
Change - Volume	+ 10.2 %

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

Change - Tensile Strength	- 16.7 %
Change - Elongation	- 3.2 %
Change - Hardness, Shore A	- 13
Change - Volume	+ 18.4 %