

Compound

**10844**FLUORINATED HYDROCARBON  
80 DUROMETER - BLACK COLOR  
FDA APPROVED MATERIALS**PRODUCT DATA SHEET**

Compound 10844 is an 80 durometer black colored fluorinated hydrocarbon elastomer, it is formulated with FDA sanctioned materials. It exhibits good 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 820 A1-10 B37 B38 EF31 EO78  
4 HK 820 A1-11 B38 EF31 EO78  
6 HK 820 A1-10 A1-11 EF31 EO38

CFR 21 177.2600

**Original Properties**

|                           |               |           |
|---------------------------|---------------|-----------|
| Modulus @ 50% Elongation  | 577 psi       | 4.0 MPa   |
| Modulus @ 100% Elongation | 1266 psi      | 8.7 MPa   |
| Tensile Strength          | 2,207 psi     | 15.2 MPa  |
| Ultimate Elongation       | 166 %         |           |
| Hardness, Shore A         | 82 Durometer  |           |
| Specific Gravity          | 1.84 grams/cc |           |
| Brittleness Temperature   | -12 °F        | -24 °C    |
| TR-10 Temperature         | -2 °F         | -19 °C    |
| Tear Resistance, Die B    | 200.9 ppi     | 35.2 kN/m |
| Tear Resistance, Die C    | 123.6 ppi     | 21.6 kN/m |

**Compression Set**

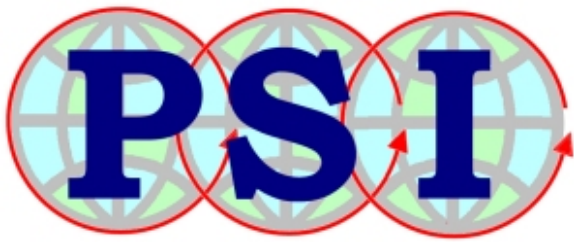
|                                 |        |
|---------------------------------|--------|
| Plied: 22 hrs @ RT (73°F, 23°C) | 19.2 % |
| Plied: 22 hrs @ 347°F (175°C)   | 13.0 % |
| Plied: 22 hrs @ 392°F (200°C)   | 16.7 % |

**HEAT AGED: 70 hrs @ 482°F (250°C)**

|                            |         |
|----------------------------|---------|
| Change - Tensile Strength  | + 8.3 % |
| Change - Elongation        | + 1.7 % |
| Change - Hardness, Shore A | 0       |

**HEAT AGED: 70 hrs @ 527°F (275°C)**

|                            |          |
|----------------------------|----------|
| Change - Tensile Strength  | - 12.4 % |
| Change - Elongation        | + 9.2 %  |
| Change - Hardness, Shore A | + 4      |



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|                            |         |
|----------------------------|---------|
| Change - Hardness, Shore A | - 3     |
| Change - Volume            | + 3.5 % |

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

|                            |          |
|----------------------------|----------|
| Change - Tensile Strength  | - 12.1 % |
| Change - Elongation        | - 7.6 %  |
| Change - Hardness, Shore A | - 1      |
| Change - Volume            | + 3.6 %  |

**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            | + 1.6 % |

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

|                            |          |
|----------------------------|----------|
| Change - Tensile Strength  | - 3.6 %  |
| Change - Elongation        | + 20.5 % |
| Change - Hardness, Shore A | - 6      |
| Change - Volume            | + 10.8 % |

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

|                            |          |
|----------------------------|----------|
| Change - Tensile Strength  | - 9.9 %  |
| Change - Elongation        | + 14.4 % |
| Change - Hardness, Shore A | - 9      |
| Change - Volume            | + 17.6 % |

**Tear Resistance, Method D 624, Die B**

|                 |           |
|-----------------|-----------|
| Tear Resistance | 200.9 ppi |
|-----------------|-----------|

**Tear Resistance, Method D 624, Die C**

|                 |           |
|-----------------|-----------|
| Tear Resistance | 123.6 ppi |
|-----------------|-----------|