

**Marco Compound # F1004**  
**80 Durometer, Blue, General Purpose Fluorosilicone**  
**Technical Datasheet**

**Common Names:**

Fluorosilicone, FVMQ

**General Description:**

Fluorosilicone is a widely used elastomer that can be compounded to meet a wide range of applications. The mechanical and physical properties are very similar to silicone rubber. However, fluorosilicone offers improved fuel and mineral oil resistance but poor hot air resistance when compared with silicone. This material is widely used in semiconductor Ashing equipment for its resistance to oxygen plasma. Please contact [sales@marcorubber.com](mailto:sales@marcorubber.com) for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

### Original Properties

Tensile Strength	737 psi	5.1 MPa
Ultimate Elongation	96 %	
Hardness, Shore A	83 Durometer	
Specific Gravity	1.57 grams/cc	
Brittleness Temperature	-58 °F	-50 °C
Tear Resistance, Die B	102 ppi	17.9 kN/m
Tear Resistance, Die C	64 ppi	11.2 kN/m

### Compression Set

Solid: 22 hrs @ 347°F (175°C)	15.5 %
Solid: 70 hrs @ 302°F (150°C)	19.9 %
Plied: 22 hrs @ 347°F (175°C)	35.0 %
Plied: 70 hrs @ 302°F (150°C)	33.3 %

### HEAT AGED: 70 hrs @ 392°F (200°C)

Change - Tensile Strength	- 9.4 %
Change - Elongation	- 5.2 %
Change - Hardness, Shore A	0

### HEAT AGED: 70 hrs @ 437°F (225°C)

Change - Tensile Strength	- 11.5 %
Change - Elongation	- 3.1 %
Change - Hardness, Shore A	+ 1

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

Change - Hardness, Shore A	- 4
Change - Volume	+ 2.5 %

This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.

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

Change - Tensile Strength	- 14.1 %
Change - Elongation	- 7.3 %
Change - Hardness, Shore A	- 8
Change - Volume	+ 12.9 %

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

Change - Tensile Strength	- 22.2 %
Change - Elongation	- 9.4 %
Change - Hardness, Shore A	- 13
Change - Volume	+ 21.3 %

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

Change - Tensile Strength	+ 6.0 %
Change - Elongation	+ 15.6 %
Change - Hardness, Shore A	0
Change - Volume	+ 0.6 %

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

Change - Tensile Strength	+ 0.3 %
Change - Elongation	+ 24.0 %
Change - Hardness, Shore A	- 3
Change - Volume	+ 3.5 %