



## Marco Compound # F1024 90 Durometer, Blue, Commercial Grade 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. Fluorosilicone material is widely used in semiconductor ashing equipment for its resistance to oxygen plasma. Marco compound F1024 is a 90 durometer formulation for use in higher pressure applications. Please contact [engineering@marcorubber.com](mailto:engineering@marcorubber.com) for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

### **Features:**

- Excellent flexibility and resistance to compression set
- Excellent resistance to aging and weather-sunlight
- Resistance to oxidizing chemicals, animal and vegetable oils, fuels, aromatic and chlorinated solvents
- Resistant to diluted alkalis, diester oils, aliphatic and aromatic fluorocarbons, silicone oil, toluene, benzene, ozone and oxidative environments.

### **Limitations:**

- Brake fluids, ketones, hydrazine, aldehydes, amines, ketones
- Poor abrasion resistance

### **Service Temperature:**

-100 to 350° F (-73 to 177°C)

## PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Typical Test Results
Hardness, Shore A	86
Color	Blue
Tensile Strength, MPa	7.9
Ultimate Elongation	130
Specific Gravity	1.484

HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 200°C)	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+1
Tensile Strength Change, %, ASTM D412	-16
Ultimate Elongation Change, %, ASTM D412	-35

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<b>COMPRESSION SET – ASTM D 395 Method B (22 hrs. @ 175°C)</b>	<b>Typical Test Results</b>
Permanent Set %	17

<b>FLUID RESISTANCE –ASTM #1 Oil – ASTM D 471 (70 hrs. @ 150°C)</b>	<b>Typical Test Results</b>
Hardness Change, Shore A, ASTM D2240	-15
Tensile Strength Change, %, ASTM D412	-19
Ultimate Elongation Change, %, ASTM D412	-1
Volume Change, %, ASTM D412	+14

<b>FLUID RESISTANCE – ASTM #3 Oil - ASTM D 471 (70 hrs. @ 150°C)</b>	<b>Typical Test Results</b>
Hardness Change, Shore A, ASTM D2240	-3
Tensile Strength Change, %, ASTM D412	+0
Ultimate Elongation Change, %, ASTM D412	-2
Volume Change, %, ASTM D412	+2

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