



Marco Compound # F1012 70Durometer, Blue, Silver Filled 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 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:

-55 to 350°F

Specification:

ASTM D2000 M2FK706 A19 B37 F19

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	67
Color	Blue	Blue
Tensile Strength, psi	865	1,000
Ultimate Elongation	150	180
Specific Gravity		1.38

HEAT RESISTANCE – A19, ASTM D 573 (70 hrs. @ 275°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-5 to +10	+3
Tensile Strength Change, %, ASTM D412	-25 (max)	-14
Ultimate Elongation Change, %, ASTM D412	-25 (max)	-22

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COMPRESSION SET – B37, ASTM D 395 Method B (22 hrs. @ 175°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	25 (max)	11

FLUID RESISTANCE –ASTM #1 Oil – ASTM D 471 (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-	+0
Tensile Strength Change, %, ASTM D412	-	+7
Ultimate Elongation Change, %, ASTM D412	-	-2
Volume Change, %, ASTM D412	-	+5

FLUID RESISTANCE – ASTM #3 Oil, ASTM D 471 (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-	-2
Tensile Strength Change, %, ASTM D412	-	-9
Ultimate Elongation Change, %, ASTM D412	-	-7
Volume Change, %, ASTM D412	-	+1

LOW TEMPERATURE RESISTANCE – F19, ASTM D2137 Method A, 9.3.2	ASTM D2000 Requirements	Typical Test Results
Non-brittle after 3 min. @ -55°C	Non Brittle	Pass

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