



Marco Compound # F1008 50 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. 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:

-100 to 350° F

Specification:

ASTM D2000 M2FK506 A19 EF31 EO36 F19

This compound can meet MIL-R- 25988 Class I, Type II, but it is not certifiable.

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240	50 +/- 5	52
Color	Blue	Blue
Tensile Strength, MPa (psi), ASTM D1414	6.20 (895) min.	7.5 (1080)
Ultimate Elongation, %, ASTM D1414	200	421
Specific Gravity, ASTM D297		1.31

HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 225° C)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+15	+3
Tensile Strength Change, %, ASTM D1414	-45 (max)	-21
Ultimate Elongation Change, %, ASTM D1414	-45 (max)	-13

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Compression Set - ASTM D 573 (22 hrs. @ 175° C)	--	+11
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FLUID RESISTANCE – ASTM D 471, # 1 Oil (70 hrs. @ 150°C)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	--	-8
Tensile Strength Change, %, ASTM D1414	--	-2
Ultimate Elongation Change, %, ASTM D1414	--	-2
Volume Change, %, ASTM D471	--	+5

FUEL IMMERSION - ASTM D 471, # 3 Oil (70 hrs. @ 150°C)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	0 to -10	-8
Tensile Strength Change, %, ASTM D1414	-35	-11
Ultimate Elongation Change, %, ASTM D1414	-30	-10
Volume Change, %, ASTM D471	0 to -10	+5

FUEL RESISTANCE TT-S-735 Type III -ASTM D 471, (22 hrs. @ 23°C)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	0 to-15	-6
Tensile Strength Change, %, ASTM D1414	-60	-48
Ultimate Elongation Change, %, ASTM D1414	-50	-44
Volume Change, %, ASTM D471	1 ~+25	+24

LOW TEMPERATURE BRITTLENESS	Specification Requirements	Typical Test Results
Test after 3 min at -55° C	Non-Brittle	Non-Brittle

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