



Marco Compound # F1030 50 Durometer, Blue, Internally Lubricated 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. Fluorosilicone offers improved fuel and mineral oil resistance but poor hot air resistance when compared with silicone. Marco compound F1030 is internally lubricated with silicone oil which reduces friction on the surface during installation and use. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:

- Internally lubricated with silicone oil
- 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 alkalies, 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

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240	50 +/- 5	49
Color	Blue	Blue
Tensile Strength, MPa, ASTM D1414	9.0	9.6
Ultimate Elongation, %, ASTM D1414	300	398
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	+10
Tensile Strength Change, %, ASTM D1414	-45 (max)	-22
Ultimate Elongation Change, %, ASTM D1414	-45 (max)	-29

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.

COMPRESSION SET - ASTM D 573, (22 hrs. @ 175°C)	Specification Requirements	Typical Test Results
Permanent Set, %	-----	12

FUEL IMMERSION - Gasoline (70 hrs. @ 23°C)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	--	-5
Tensile Strength Change, %, ASTM D1414	--	-15
Ultimate Elongation Change, %, ASTM D1414	--	-18
Volume Change, %, ASTM D471	--	+15

FUEL IMMERSION - Reference Fuel C (70 hrs. @ 23°C)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	--	-10
Tensile Strength Change, %, ASTM D1414	--	-28
Ultimate Elongation Change, %, ASTM D1414	--	-32
Volume Change, %, ASTM D471	--	+20

FUEL IMMERSION - ASTM D 471, # 3 Oil (70 hrs. @ 150°C)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	--	-10
Tensile Strength Change, %, ASTM D1414	--	-28
Ultimate Elongation Change, %, ASTM D1414	--	-32
Volume Change, %, ASTM D471	--	+20

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