Request a Quote

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Marco Compound # F1027
70 Durometer, Blue, AMS 7273 Certified 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 when compared to silicone. Marco compound F1027 is certified to AMS 7273 for use in aerospace applications. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:
- Certified to Aerospace specification ASM7273
- 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, adelhydes, amines, ketones
- Poor abrasion resistance

Service Temperature:
-60° to 200°C (-75° to 392°F)

Specification:
AMS 7273 (AS9966, AS9967)

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240	75 +/- 5	78
Color	Blue	Blue
Tensile Strength, MPa, ASTM D1414	5.51 min.	6.6
Ultimate Elongation, %, ASTM D1414	100 min.	163
Modulus @ 100% Elongation, MPa, ASTM D1414	4.83 to 6.9	5.63

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HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 200°C)	**Specification Requirements**	**Typical Test Results**
Hardness Change, Shore A, ASTM D2240	-5 to +5	+4
Tensile Strength Change, %, ASTM D1414	-10 (max)	-7.2
Ultimate Elongation Change, %, ASTM D1414	-15 (max)	-2.5
Bend Flat	No Cracks	No Cracks

COMPRESSION SET – ASTM D1414 (22 hrs. at 175°C)	**Specification Requirements**	**Typical Test Results**
Permanent Set, %	30 max.	5.7

FLUID RESISTANCE – AMS3021 (70 hrs. @ 150°C)	**Specification Requirements**	**Typical Test Results**
Hardness Change, Shore A, ASTM D2240	-10 to +0	-6
Tensile Strength Change, %, ASTM D1414	-25	-18.2
Ultimate Elongation Change, %, ASTM D1414	-20	-3.1
Volume Change, %, ASTM D471	-0 to +12	+10

FLUID RESISTANCE – TT-S-735 (22 hrs. @ 23°C)	**Specification Requirements**	**Typical Test Results**
Hardness Change, Shore A, ASTM D2240	-10 to +0	-8
Tensile Strength Change, %, ASTM D1414	-30 max.	-17.8
Ultimate Elongation Change, %, ASTM D1414	-15 max.	-6.1
Volume Change, %, ASTM D471	-0 to +20	+16.2

TEMPERATURE RETRACTION – ASTM D1329 **(**-55°C)	**Specification Requirements**	**Typical Test Results**
TR-10	Pass	Pass