



Marco Compound # S1109

60 Durometer, Red, FDA Silicone

Technical Datasheet

Common Names:

Silicone, VQM

General Description:

Silicones are excellent seal materials for extreme temperature in static applications. Silicones can be synthesized with a wide variety of properties and compositions. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:

- FDA Compliant
- Excellent heat and compression resistance
- Excellent resistance to oxygen, ozone and sunlight
- Good chemical resistance
- Resistance to fungal and biological attack
- Flexible
- Good electrical insulation

Limitations:

- Not recommended for dynamic application
- Concentrated solvents, oils, concentrated acids, diluted sodium hydroxide.
- Poor abrasion resistance
- Low strength
- High gas permeability

Service Temperature:

-65 to 400° F (-54 to 205° C)

Specification:

ASTM 2000 M5GE606 A19 B37 EA14 EO16 EO36 F19

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	60 +/- 5	61
Color	Red	Red
Tensile Strength, MPa (psi)	6.0 (870)	6.8 (914)
Ultimate Elongation, %	200	361
Specific Gravity		1.226

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HEAT RESISTANCE – A19, ASTM D 573 (70 hrs. @ 225°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	+10	+2
Tensile Strength Change, %, max.	-25	-11
Ultimate Elongation Change, %, max.	-30	-16

COMPRESSION SET – B37, ASTM D 325 Method B (22 hrs. @ 175°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, max.	25	12

FLUID RESISTANCE –ASTM #1 Oil – EO16, ASTM D 471 (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	0 to -15	-3
Tensile Strength Change, %, max.	-20	-11
Ultimate Elongation Change, %, max.	-20	-0.6
Volume Change, %	0 to +10	+8

FLUID RESISTANCE – IRM 903 Oil, -EO36, ASTM D 471 (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A, max.	-30	-11
Volume Change, %, max.	+ 60	+28

LOW TEMPERATURE BRITTLINESS POINT- F19, ASTM D2137-94	ASTM D2000 Requirements	Typical Test Results
3 Minutes @ -55° C	Non Brittle	Pass

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