



Marco Compound # S1169

70 Durometer, NSF61 Compliant, Red Silicone

Technical Datasheet

Common Names:

Silicone, VQM

General Description:

Silicones are excellent seal materials for extreme temperature in static applications. Marco's S1169 compound is NSF61 compliant for drinking water 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:

- NSF61 Compliant
- Excellent heat and compression resistance
- Excellent resistance to oxygen, ozone and sunlight
- Good chemical resistance
- Resistance to fungal and biological attack
- 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 M7GE705 A19 B37 EA14 EO16 EO36 F19 Z1 (Z1 = NSF61)

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	69
Color	Red	Red
Tensile Strength, MPa (psi)	5.0 (725)	6.4 (930)
Ultimate Elongation, %	150	215
Modulus @ 100%, psi	-----	563
Specific Gravity	-----	1.320

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.

HEAT RESISTANCE – A19, ASTM D 573 (70 hrs. @ 225°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	+10	+3.0
Tensile Strength Change, %, max.	-25	+3.5
Ultimate Elongation Change, %, max.	-30	-29.6

COMPRESSION SET – B37, ASTM D 325 Method B (22 hrs. @ 175°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, max.	30	15.4

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	-9.0
Tensile Strength Change, %, max.	-20	-9.1
Ultimate Elongation Change, %, max.	-20	-7.4
Volume Change, %	0 to +15	+8.1

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.	-40	-27.0
Volume Change, %, max.	+60	+41.4

FLUID RESISTANCE – Water, -EA14, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A, max.	±5 max	0
Volume Change, %, max.	±5 max	-1.1

LOW TEMPERATURE RESISTANCE – F19, ASTM D 2137 (3 min. @ -55°C)	ASTM D2000 Requirements	Typical Test Results
Non – Brittle	Pass	Pass

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