Request a Quote

(800) 775-6525 Fax: (800) 421-2923
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Marco Compound # S1038

70 Durometer, Orange, High Temperature, Low Compression Set 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:
- Compliant to A-A-59588 (2B-60)
- High Temperature
- 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 500°F (-54 to 260°C)
Higher Spikes up to 550°F (287°C) - Short Duration

Specification:
ASTM 2000 M5GE606 A19 B37 EA14 EO16 EO36 F19 Z1 (Z1=HIGH TEMP)

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	60 +/- 5	63
Color	Orange	Orange
Tensile Strength, psi	870	1290
Ultimate Elongation, %	200	333
Specific Gravity	-----	1.144

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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	+3
Tensile Strength Change, %, max.	-25	-9
Ultimate Elongation Change, %, max.	-30	-19

COMPRESSION SET – B37, ASTM D 325 Method B (22 hrs. @ 175°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set, %, max.	25	15

COMPRESSION SET – ASTM D 325 Method B (70 hrs. @ 150°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set, %, max.	-----	9

FLUID RESISTANCE –ASTM #1 Oil – EO36, ASTM D 471 (70 hrs. @ 150°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, Shore A	0 to -15	-8
Tensile Strength Change, %, max.	-20	-4
Ultimate Elongation Change, %, max.	-20	-5
Volume Change, %	0 to +10	+8

FLUID RESISTANCE – Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, Shore A	±5	-1
Volume Change, %	±5	+0

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	-22
Volume Change, %, max.	+ 60	+48

LOW TEMPERATURE BRITTLENESS – F19, (3 min. @ -64°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Non-Brittle	Pass	Pass