

Marco Compound # S1184
70 Durometer, Red, FDA Metal Detectable Silicone
Technical Datasheet – Rev 1, August 2020

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
- Metal Detectable
- 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 D2000 M7GE705 B37 EO16 EO36 F19 Z1

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	65
Color	Red	Red
Tensile Strength, MPa (psi)	5.0 (725)	5.5 (798)
Ultimate Elongation, %	150	285

HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 225°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	+10	0
Tensile Strength Change, %, max.	-25	-14
Ultimate Elongation Change, %, max.	-30	-30

COMPRESSION SET – B37, ASTM D 325 Method B (22 hrs. @ 175°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, max.	30	13

FLUID RESISTANCE – IRM 901 Oil – EO16, ASTM D 471 (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	0 to -15	-2
Tensile Strength Change, %, max.	-20	-14
Ultimate Elongation Change, %, max.	-20	-15
Volume Change, %	0 to 15	+5.5

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	-12
Volume Change, %, max.	+ 60	+32

LOW TEMPERATURE RESISTANCE – F19, ASTM 2137-11	ASTM D2000 Requirements	Typical Test Results
Non brittle after 3 min. at -55° C	Pass	Pass

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