



Marco Compound # S1091

90 Durometer, Orange, FDA Compliant 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 per 21CFR177.2600
- 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)

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	90 +/- 5	87
Color	Orange	Orange
Tensile Strength, psi	865	895
Ultimate Elongation, %	100	120
Specific Gravity		1.27

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	+6
Tensile Strength Change, %, max.	-25	-24
Ultimate Elongation Change, %, max.	-30	-23

COMPRESSION SET – B37, ASTM D 325 (4 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, max.	25	16

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	0
Tensile Strength Change, %, max.	-20	-9
Ultimate Elongation Change, %, max.	-20	-5
Volume Change, %	0 to +10	+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.	-30	-9
Volume Change, %, max.	+ 60	+12

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