



## Marco Compound # S1043

### 50 Durometer, Orange, Low Temperature 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](mailto:engineering@marcorubber.com) for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

#### Features:

- Low Temperature
- 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

#### Cure System:

Peroxide

#### Service Temperature:

-103 to 400° F (-75 to 205° C)

#### Specification:

ASTM 2000 M5GE505 A19 B37 EO16 EO36 F19

#### PHYSICAL PROPERTY STANDARDS

| ORIGINAL PROPERTIES         | ASTM D2000 Requirements | Typical Test Results |
|-----------------------------|-------------------------|----------------------|
| Hardness, Shore A           | 50 +/- 5                | 55                   |
| Color                       | Orange                  | Orange               |
| Tensile Strength, MPa (psi) | 5.0 (720)               | 5.2 (750)            |
| Ultimate Elongation, %      | 250                     | 261                  |
| Specific Gravity            |                         | 1.14                 |

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.

| <b>HEAT RESISTANCE – A19, ASTM D 573 (70 hrs. @ 225°C)</b> | <b>ASTM D2000 Requirements</b> | <b>Typical Test Results</b> |
|--|--------------------------------|-----------------------------|
| Hardness Change, points, Shore A                           | +10                            | +2                          |
| Tensile Strength Change, %, max.                           | -25                            | +7                          |
| Ultimate Elongation Change, %, max.                        | -30                            | -2                          |

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

| <b>FLUID RESISTANCE –ASTM #1 Oil – EO16, ASTM D 471 (70 hrs. @ 150°C)</b> | <b>ASTM D2000 Requirements</b> | <b>Typical Test Results</b> |
|---|--------------------------------|-----------------------------|
| Hardness Change, points, Shore A  | 0 to -15                       | -4                          |
| Tensile Strength Change, %, max.  | -20                            | -12                         |
| Ultimate Elongation Change, %, max.                                       | -20                            | -7                          |
| Volume Change, %  | 0 to+10                        | +2                          |

| <b>FLUID RESISTANCE – ASTM #3 Oil, -EO36, ASTM D 471 (70 hrs. @ 150°C)</b> | <b>ASTM D2000 Requirements</b> | <b>Typical Test Results</b> |
|--|--------------------------------|-----------------------------|
| Hardness Change, points, Shore A, max.                                     | -30                            | -24                         |
| Volume Change, %, max.   | + 60                           | +15                         |

| <b>LOW TEMPERATURE RESISTANCE – F19, ASTM D 2137 Method A, 9.3.2</b> | <b>ASTM D2000 Requirements</b> | <b>Typical Test Results</b> |
|--|--------------------------------|-----------------------------|
| (Non-brittle after 3 min. @ -100°C)                                  | Non-brittle                    | Non-brittle                 |

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