MR O-RING
THE EASIEST WAY TO BUY O-RINGS ONLINE

# Material Datasheet

## Compound #: S70 — Silicone, Red, FDA Compliant

| Material Summary | | |
|---|---|---|
| Material Type: | Silicone Rubber | |
| Durometer: | 70 | |
| Color: | Red | |
| Special Properties: | FDA Compliant 21 CFR 177.2600 | |
| Recommended Temperature Range (Static): | -60°C to 225°C | |
| Specification: | ASTM D2000 M7GE705 A19 B37 EA14 EO16 EO36 F19 G11 | |
| **Original Properties** | **Requirements** | **Typical Results** |
| Hardness, (Shore A) (ASTM D2240-15) | 70±5 | 69 |
| Tensile Strength, psi(MPa) (ASTM D412-16) | 725(5.00) | 943(6.50) |
| Elongation, (%) (ASTM D412-16) | 150(min) | 221 |
| Modulus at 100%, psi(MPa) (ASTM D412-16) | | 630 |
| Density, ($Mg/m^3$) (CNS 5341-96, Method A) | | 1.32 |
| **(A19) Heat age, 70 Hrs @ 225 ℃ (ASTM D573-04)** | | |
| Hardness Change, pts. | ±10 | +2 |
| Tensile Strength Change, % | -25(max) | -8 |
| Elongation Change, % | -30(max) | -28 |
| Weight Change, % | | -2.3 |
| **(B37) Compression set, 22 Hrs @ 175 ℃ (ASTM D395-18,Method B)** | | |
| - | 30%(button)(max) | 20 |
| **(EA14) Water Resistance, 70 Hrs @ 100 ℃ (ASTM D471-16a)** | | |
| Hardness Change, pts. | ±5 | -1 |
| Tensile Strength Change, % | | -3 |
| Elongation Change, % | | -14 |
| Volume Change, % | ±5 | +1.7 |
| **(EO16) IRM 903 Oil, 70 Hrs @ 150 ℃ (ASTM D471-16a)** | | |
| Hardness Change, pts. | -15~0 | -6 |
| Tensile Strength Change, % | -20(max) | -3 |
| Elongation Change, % | -20(max) | -6 |
| Volume Change, % | 0~+15 | +4.3 |
| **(EO36) IRM 903 Oil, 70 Hrs @ 150 ℃ (ASTM D471-16a)** | | |
| Hardness Change, pts. | -40(max) | -20 |
| Tensile Strength Change, % | | -21 |
| Elongation Change, % | | -14 |
| Volume Change, % | +60(max) | +33.6 |

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| (F19) Low-Temperature Brittleness Point Test (ASTM D2137-11,Method C) | | |
|---|---|---|
| Sample type: T-50, | | |
| Coolant : Isopropyl alcohol, | | |
| Low Temperature Property, | no crack | pass |
| **(G11) Tear Resistance (ASTM D624-00)** | | |
| | 9kN/m(Die B)(min) | 11.68 |

*American Society for Testing and Materials

Report Date: 3/4/2022