



## MATERIAL PROPERTY DATA SHEET

### S500-70 SILICONE

#### GENERAL PROPERTIES

S500-70 offers outstanding temperature resistance across a broad range, from -80°F to +440°F. This inert, FDA grade silicone is ideal for use in food handling and medical applications. S500-70 also provides excellent resistance to sunlight, ozone, oxygen, UV light and moisture meeting many industry standards including MIL-SPEC.

| <u>ASTM D2000</u><br><u>Designation</u> | <u>PHYSICAL PROPERTIES</u>                                 | <u>REQUIREMENTS</u> | <u>TYPICAL RESULTS</u> |
|---|--|---------------------|------------------------|
| GE                                      | <u>ORIGINAL PROPERTIES</u>                                 |                     |                        |
|   | Durometer, Shore A   | 70 +/- 5            | 70                     |
|   | Tensile, MPa (psi), Minimum                                | 6 (870)             | 6.2 (995)              |
|   | Elongation, % Minimum                                      | 150                 | 284                    |
|   | Specific Gravity   | -                   | 1.39                   |
|   | Color  | -                   | Red                    |
| A19                                     | <u>HEAT AGE, D573, 70 HRS @ 225°C</u>                      |                     |                        |
|   | Durometer Change, Points                                   | +10                 | +4                     |
|   | Tensile Strength Change, % Maximum                         | -25                 | -7                     |
|   | Elongation Change, % Maximum                               | -30                 | -14                    |
|   | Bend flat, no cracking or checking                         | Pass                | Pass                   |
| B37                                     | <u>COMPRESSION SET, METHOD B, 22 HRS @ 175°C</u>           |                     |                        |
|   | Deflection, % Maximum                                      | 25                  | 12                     |
| EA14                                    | <u>WATER RESISTANCE, D471, IRM 901 OIL, 70 HRS @ 150°C</u> |                     |                        |
|   | Durometer Change, Points                                   | +/- 5               | -3                     |
|   | Volume Change, %   | +/- 5               | +4                     |
| EO16                                    | <u>FLUID RESISTANCE, D471, IRM 901 OIL, 70 HRS @ 150°C</u> |                     |                        |
|   | Durometer Change, Points                                   | 0 to -15            | -5                     |
|   | Tensile Change, % Maximum                                  | -20                 | -6                     |
|   | Elongation Change, % Maximum                               | -20                 | -4                     |
|   | Volume Change, %   | +10 / -0            | +6                     |
|   | Decomposition  | None                | None                   |
|   | Surface Tackiness  | None                | None                   |
| EO36                                    | <u>FLUID RESISTANCE, D471, IRM 903 OIL, 70 HRS @ 150°C</u> |                     |                        |
|   | Durometer Change, Points                                   | -30                 | -14                    |
|   | Volume Change, %   | +60                 | +37                    |
| F19                                     | <u>LOW-TEMP RESISTANCE, D2137, METHOD C, 9.3.3</u>         |                     |                        |
|   | Nonbrittle after 3 min at -55°C                            | Pass                | Pass                   |
|   | Nonbrittle after 3 min at -65°C (-85°F)                    | -                   | Pass                   |
| G11                                     | <u>TEAR RESISTANCE, D624, DIE B</u>                        |                     |                        |
|   | Tensile < 7.0 MPa, Minimum kN/m                            | 9                   | 19                     |



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**SPECIFICATIONS MET**

ASTM D2000 M5GE 706 A19 B37 EA14 EO16 EO36 F19 G11

REACH SVHC 219

RoHS 2015/863

California Proposition 65

Dodd-Frank Consumer Protection Act: No conflict materials (Tantalum, Tin, Tungsten & Gold)

A-A-59588B Class 2A & 2B, Grade 70 (Formally ZZ-R-765)

FDA 21 CFR 177.2600

AMS 3304 Rev J