S1001 MATERIAL SUMMARY

70 Durometer, Orange, General Use Silicone

Request a Quote

Silicones are excellent seal materials for extreme temperature in static applications. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

ABOUT #S1001

S1001 is a 70A, general use silicone material. Silicones can be synthesized with a wide variety of properties and compositions.

FEATURES

- 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

APPLICATION EXAMPLES

- Extreme hot & cold applications
- Outdoor weathering applications

ADDITIONAL INFORMATION

- Service Temperature of -75° to 400°F
- Cure System: Peroxide
- Spec: ASTM 2000 M5GE703 A19 B37 EA14 E016 E036 F19 G11

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PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	68
Color	Orange	Orange
Tensile Strength, psi	650	900
Ultimate Elongation, %	125	195
HEAT RESISTANCE – A19, ASTM D 573 (70 hrs. @ 225°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	+/-10	3
Tensile Strength Change, %, max.	-25	-22
Ultimate Elongation Change, %, max.	-40	-26
COMPRESSION SET – B37, ASTM D 325 Method B (22 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, max.	25	15
COMPRESSION SET – ASTM D 325 Method B (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, max.	-	15
WATER RESISTANCE – EA14, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	+/-5	0
Volume Change, %	+/-5	0
FLUID RESISTANCE –ASTM #1 Oil – EO16, ASTM D 471 (70 hrs. @ 150°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A	-15 to +5	-4
Tensile Strength Change, %, max.	-20	14
Ultimate Elongation Change, %, max.	-15	-7
Volume Change, %	0 to15	5
OZONE RESISTANCE – ASTM D 1171 (50 PPHM @ 20% Elongation)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, Shore A, max.	No Crack	Pass
LOW TEMPERATURE RESISTANCE – F19, ASTM D 2137 Method A, 9.3.2	ASTM D2000 Requirements	Typical Test Results
(Non-brittle after 3 min. @ -65°C)	Non-brittle	Pass