

BISCO® Silicones

BISCO® Silicones – General Purpose Solid Silicones Typical Values

	Test Method	HT-1240	HT-1250	HT-1260	HT-1270	HT-1500	
Typical Physical Properties	Durometer, Shore "A" (pts)	ASTM D-2240	40 ± 5	50 ± 5	60 ± 5	70 ± 5	75 ± 10
	Tensile Strength, psi (MPa)	ASTM D-412	825 (5.7)	950 (6.6)	1050 (7.2)	1150 (7.9)	300 (5.3) A
	Elongation, %	ASTM D-412	350	300	250	200	N/A
	Tear Strength, ppi (kN/m)	ASTM D-624	50 (8.8)	70 (12.2)	75 (13.1)	90 (15.8)	N/A
	Compression Set, % 70 hr @ 302°F (150°C)	ASTM D-395 (B)	20	20	20	25	25
Effects of Dry Heat Aging 70 hr @ 437°F (225°C)	Change in Hardness, Shore "A" (pts)	ASTM D-573	±5	±5	±5	±5	-5 to +10
	Change in Tensile Strength, %	ASTM D-573	-15	-15	-15	-15	-20 A
	Change in Elongation, %	ASTM D-573	-35	-35	-35	-35	N/A
Effects of Oil Immersion ASTM #1 Oil 70 hr @ 302°F (150°C)	Change in Hardness, Shore "A" (pts)	ASTM D-471	-10 to +5	-10 to +5	-10 to +5	-10 to +5	-10 to +5
	Change in Tensile Strength, %	ASTM D-471	-10	-10	-10	-10	-20 A
	Change in Elongation, %	ASTM D-471	-15	-15	-15	-15	N/A
	Change in Volume, %	ASTM D-471	+5	+5	+5	+5	+10
Electrical & Thermal Properties	Dielectric Constant	ASTM D-150	3.0	3.0	3.1	3.2	3.2
	Dielectric Strength, Volts/mil	ASTM D-149	400	400	400	400	400
	Volume Resistivity, Ohm – cm	ASTM D-257	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹⁴
	Thermal Conductivity, BTU in/hr/ft ² /°F (W/m ·K)	ASTM D-518	1.7 (0.25)	1.8 (0.26)	1.9 (0.27)	2.1 (0.30)	2.0 (0.29)
Environmental Resistance	Volume Change from Water Immersion %, 70 hr. @ 212°F (100°C)	ASTM D-471	+10	+5	+5	+5	+5
	Low Temperature Embrittlement, °F (°C)	ASTM D-2137	-80 (-62)	-80 (-62)	-80 (-62)	-80 (-62)	-80 (-62)
	Recommended Use Temperature, °F (°C)		-80 to 425 (-62 to 218)	-80 to 425 (-62 to 218)	-80 to 425 (-62 to 218)	-80 to 425 (-62 to 218)	-80 to 425 (-62 to 218)
Dimensions	Available Thickness Range, inches (mm)		0.020 to 0.250 (0.5 to 6.4)	0.020 to 0.250 (0.5 to 6.4)	0.020 to 0.250 (0.5 to 6.4)	0.020 to 0.250 (0.5 to 6.4)	0.031 to 0.125 (0.8 to 3.2)
	Standard Widths, inches (mm)		36 (914)	36 (914)	36 (914)	36 (914)	36 (914)
	Standard Colors		Red B	Red B	Red B	Red B	Red
Specifications Available	A-A-59588		40	50	60	70	N/A
	AMS Specification		N/A	3302	3303	3304	3320 C

Note: Typical values are a representation of an average value for the population. For specification values contact Rogers Corporation.

- A** Data relevant to the breaking strength of the fiberglass only, and measured in ppi (MPa-cm) using ASTM D-751 cut strip method
- B** White, black and gray formulations available
- C** AMS 3220 available thicknesses are 0.063" (1.59mm), 0.094" (2.38mm) and 0.125" (3.2mm)

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Nominal Thickness inch (mm)	Tolerance
0.020" (0.51mm)	±0.004" (±0.10mm)
0.031" (0.79mm)	±0.005" (±0.13mm)
0.039" (1.0mm)	±0.005" (±0.13mm)
0.0625" (1.59mm)	±0.0065" (±0.17mm)
0.079" (2.0mm)	±0.008" (±0.20mm)
0.094" (2.38mm)	±0.010" (±0.25mm)
0.125" (3.18mm)	±0.017" (±0.43mm)

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