



BISCO™ Silicones expand the parameters of possibility in product design engineering.

BISCO Cellular Silicones Offer:

- Outstanding sealability to extreme environments and conditions
- Unsurpassed compression-set resistance
- Superb flame resistance (UL94 V-0 and HF-1 approved)
- Variable grades of closure force from very soft to very firm
- Application temperature range of -67° to + 400°F (-55° to 204°C)
- Extremely low toxic gas emission when exposed to fire
- Excellent resistance to ozone and ultraviolet exposure
- FDA approved materials
- Closed-cell and Open-cell formulations

Property	Test Method	BF-1000	HT-870	HT-800	HT-820	HT-840
<i>Physical Properties</i>						
Compression Force Deflection, psi (kpa) @ 25% Deflection	ASTM D-1056	2 (14)	4.5 (31)	8 (55)	14 (97)	22 (152)
Compression Set @ 70°C (158°F)	ASTM D-1056	< 1%	<1%	< 1%	< 1%	< 1%
Compression Set @ 100°C (212°F)	ASTM D-1056	< 5%	<5%	< 5%	< 5%	< 5%
Density, lb/ft ³ (kg/m ³)	ASTM D-3574	12 (192)	15	20 (320)	24 (384)	28 (449)



Property	Test Method	BF-1000	HT-870	HT-800	HT-820	HT-840
Tensile Strength, psi (kpa)	ASTM D-412	35 (241)	40	45 (310)	60 (414)	70 (483)
Elongation, %	ASTM D-412	100	90	80	65	55

Environmental Properties

Gasketing & Sealing Rating	UL 157	N/A	N/A	JMLU-2 (Listed)	N/A	N/A
Water Absorption	ASTM D-471	3.50%	2.50%	1.40%	0.80%	0.20%
UV Resistance	SAE J-1980	No Degradation	No Degradation	No Degradation	No Degradation	No Degradation
Ozone Effect Rating	ASTM D-1171	0 (No Cracks)	0 (No Cracks)	0 (No Cracks)	0 (No Cracks)	0 (No Cracks)
Stain Resistance	ASTM D-925(A)	No Staining	No Staining	No Staining	No Staining	No Staining
Corrosion Resistance	AMS-3588	Pass	Pass	Pass	Pass	Pass

Flammability & Outgassing

***Flame Resistance	UL 94 UL 94	HF-1 (Listed) V-0 (Listed)	HBF (Listed)	HF-1 (Listed) V-0 (Listed)	HF-1 (Listed) V-0 (Listed)	HF-1 (Listed) V-0 (Listed)
Flame Spread Index (Is)	ASTM E-162	< 25	< 25	< 25	< 25	< 25
Limiting Oxygen Index (LOI)	ASTM D-2863	34%	38%	40%	42%	44%
Smoke Density (Dx) @ 1.5 minutes	ASTM E-662	< 20	< 20	< 20	< 20	< 20
Toxic Gas Emissions Rating	SMP-801 & BSS	Pass	Pass	Pass	Pass	Pass
Weight Loss After 168 Hours @ 135° C (275°F)	ASTM D-573	1.20%	1.05%	0.90%	0.80%	0.70%



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Electrical & Thermal Properties

Dielectric Constant	ASTM D-149	1.34	1.38	1.42	1.5	1.58
Dielectric Strength (Volts/mil)	ASTM D-150	89	90	91	93	95
Dry Arc Resistance (Seconds)	ASTM D-495	90	91	92	96	98
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 C-518	0.39 0.06	0.49 0.071	0.63 0.09	0.75 0.11	0.84 0.12

Temperature Resistance

Hot Flex @ 230°C (446°F)	ASTM D-573	Pass	Pass	Pass	Pass	Pass
Low Temperature Embrittlement	ASTM D-746 (B)	-55°C (-67°F)	-55°C (-67°F)	-55°C (-67°F)	-55°C (-67°F))	-55°C (-67°F)
Recommended Use	SAE J-2236	-55°C - 200°C (-67°F - 392°F)	-55°C - 200°C (-67°F - 392°F)	-55°C - 200°C (-67°F - 392°F)	-55°C - 200°C (-67°F - 392°F)	-55°C - 200°C (-67°F - 392°F)
Recommended Intermittent High Temperature Use	Rogers Internal	250°C (482°F)	250°C (482°F)	250°C (482°F)	250°C (482°F)	250°C (482°F)

Dimensions

Available Thickness Range	-	1/16" - 1" (1.6mm-25.4mm)	1/16" - 1/2" (1.6mm-12.7mm)	1/32" - 1/2" (0.8mm-12.7mm)	1/32" - 1/4" (0.8mm-6.4mm)	1/16" - 1/4" (1.6mm-6.4mm)
Standard Widths Standard Colors	-	36" (914mm) [†] White**	36" (914mm) Black, Red	36" (914mm) Red, Gray, Black	36" (914mm) Gray	36" (914mm) Gray

Specifications Available

FDA Approved	-	BMS 1-68 White & Gray Colors only		AMS-3195 Gray Color only	AMS-3196 Gray Color only	N/A N/A
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Cellular Silicone Products (Open Cell)

Effective Application Temperature Ranges: -67 to +392 F (-55 to +200 C)

BF-1000 Extra Soft Cellular Silicone

Meets numerous industry and manufacturer specifications.

FDA Approved (21 CFR 177.2600) for White color. UL94 V-0 and UL94 HF-1 recognized.

Color(s)	Thickness		Width		Length		Total		Approx. Weight	
	inches	mm	inches	mm	ft	m	sq ft	sq m	lbs.	kg
White*, Gray**	1/16"	1.59	36	914	60	18.3	180	16.7	23	10
White*, Gray	3/32"	2.38	36	914	60	18.3	180	16.7	29	13
White, Gray	1/8"	3.18	36	914	60	18.3	180	16.7	32	15
White	3/16"	4.76	36	914	40	12.2	120	11.2	30	14
White, Gray	1/4"	6.35	36	914	40	12.2	120	11.2	38	17
White	3/8"	9.53	36	914	20	6.1	60	5.6	27	12
White, Gray	1/2"	12.70	36	914	20	6.1	60	5.6	32	15
White	3/4"	19.05	36	914	20	6.1	60	5.6	47	21
White	1"	25.40	36	914	10	3	30	2.7	55	25

*NOT V-0 recognized.

**NOT HF-1 or V-0 recognized.

The above data represents typical values. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. The relative merits of materials for a specific application should be determined by your evaluation.

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**HT-870 Soft Cellular Silicone**

UL94 V-0 and UL94 HF-1 recognized.

Color(s)	Thickness		Width		Length		Total		Approx. Weight	
	inches	mm	inches	mm	ft	m	sq ft	sq m	lbs.	kg
Red, Black	1/16"	1.59	36	914	60	18.3	180	16.7	24	11
Black	3/32"	2.38	36	914	60	18.3	180	16.7	29	13
Red, Black	1/8"	3.18	36	914	60	18.3	180	16.7	37	17
Red, Black	3/16"	4.76	36	914	40	12.2	120	11.2	35	16
Red, Black	1/4"	6.35	36	914	40	12.2	120	11.2	46	21
Red, Black	3/8"	9.53	36	914	20	6.1	60	5.6	33	15
Red, Black	1/2"	12.70	36	914	20	6.1	60	5.6	43	20

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**HT-800 Medium Cellular Silicone**

Meets AMS 3195. FDA Approved (21 CFR 177.2600) for Gray only.

UL94 V-0 (Black, Gray) and UL94 HF-1 (Black, Gray, Red) recognized.

Color(s)	Thickness		Width		Length		Total		Approx. Weight	
	inches	mm	inches	mm	ft	m	sq ft	sq m	lbs.	kg
Red, Gray, Black	1/32"	0.79	36	914	60	18.3	180	16.7	19	9
	1/16"	1.59	36	914	60	18.3	180	16.7	29	13
	3/32"	2.38	36	914	60	18.3	180	16.7	41	19
	1/8"	3.18	36	914	60	18.3	180	16.7	49	22
Red, Gray, Black	3/16"	4.76	36	914	40	12.2	120	11.2	47	21
	1/4"	6.35	36	914	40	12.2	120	11.2	59	27
Red, Gray, Black	3/8"	9.53	36	914	20	6.1	60	5.6	44	20
	1/2"	12.70	36	914	20	6.1	60	5.6	58	26

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**HT-820 Medium Cellular Silicone**

Meets AMS 3195. FDA Approved (21 CFR 177.2600) for Gray only.
 UL94 V-0 (Black, Gray) and UL94 HF-1 (Black, Gray, Red) recognized.

Color(s)	Thickness		Width		Length		Total		Approx. Weight	
	inches	mm	inches	mm	ft	m	sq ft	sq m	lbs.	kg
Black	1/32"	0.79	36	914	60	18.3	180	16.7	20	9
Gray	1/16"	1.59	36	914	60	18.3	180	16.7	34	15
	3/32"	2.38	36	914	60	18.3	180	16.7	34	15
	1/8"	3.18	36	914	60	18.3	180	16.7	55	25
Gray	3/16"	4.76	36	914	40	12.2	120	11.2	52	25
	1/4"	6.35	36	914	40	12.2	120	11.2	67	30

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**HT-840 Medium Cellular Silicone**

UL94 V-0 (Black, Gray) and UL94 HF-1 recognized.

Color(s)	Thickness		Width		Length		Total		Approx. Weight	
	inches	mm	inches	mm	ft	m	sq ft	sq m	lbs.	kg
Gray	1/16"	1.59	36	914	60	18.3	180	16.7	34	15
	1/8"	3.18	36	914	60	18.3	180	16.7	40	18
Gray	3/16"	4.76	36	914	40	12.2	120	11.2	58	26
	1/4"	6.35	36	914	40	12.2	120	11.2	79	36

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