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Typical Product Properties

BISCO® BF-1000 – Extra Soft Cellular Silicone

Compressibility, softness, and durability allow BF-1000 to adapt to various environments, making it an ideal choice for sealing outdoor enclosures, protecting electronics from shock and heat, and providing cushioning or vibration isolation for various applications.

**Features and Benefits**

- Excellent memory and low stress relaxation reduces maintenance costs associated with gasket failures due to compression set and softening.
- Softness allows designers to use less force to seal enclosures and still protect their device from the environment.
- High compressibility allows the material to conform to variable width gaps and awkward shapes, thereby allowing engineers more design flexibility.
- Resistance to ultraviolet light, ozone, extreme temperatures, and flame enables consistent performance in all environments.
- Available through distribution sites throughout North America, Europe, and Asia.
- FDA compliant in accordance with FDA Regulation 21 CFR 177.2600. ‡

**Applications**

- Environmental seals to protect against penetration of dust, moisture, air or light within outdoor enclosures such as lighting fixtures, HVAC units, and electronic cabinets
- Vibration isolation in electronic components and transportation vehicles
- Fire retardant thermal insulation

**Installation**

- Available with a pressure-sensitive adhesive on one or two sides to allow easy application to a variety of surfaces.

BISCO® BF-1000		
Property	Test Method	Typical Value
<b>PHYSICAL</b>		
<b>Color</b>		White, Gray & Black
<b>Thickness, mm (inches)</b> <b>Tolerance</b>		1.60 – 25.40 (0.063 – 1.000) See Reverse
<b>Standard Width, mm (inches)</b>		914 (36)
<b>Density, kg/m<sup>3</sup> (lb./ft<sup>3</sup>)</b>	ASTM D 1056	208 (13)
<b>Compression Force Deflection, kPa (psi)</b>	Force measured @ 25% Deflection ASTM D 1056	20.7 (3)
<b>Compression Set, % max.</b>	ASTM D 1056 Test D @ 70°C (158°F), 22 hrs.	< 1
	ASTM D 1056 Test D @ 100°C (212°F), 22 hrs.	< 5
<b>Tensile Strength, kPa (psi)</b>	ASTM D 412	241 (35)
<b>Elongation, %</b>	ASTM D 412	90
<b>FLAMMABILITY &amp; OUTGASSING</b>		
<b>Flame Resistance</b>	UL 94	Listed V-0 and HF-1
<b>Flame Spread Index (L<sub>s</sub>)</b>	ASTM E 162	< 35
<b>Smoke Density (D<sub>s</sub>)</b>	ASTM E 662 Tested @ 4.0 minutes	< 50
	Tested @ 1.5 minutes	< 20
<b>Toxic Gas Emissions Rating</b>	SMP-800C & BSS 7239	Pass

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# BISCO® BF-1000 – Extra Soft Cellular Silicone (continued)

PROPERTY	TEST METHOD	VALUE
<b>ENVIRONMENTAL PROPERTIES</b>		
Water Absorption	Internal: 24 hrs @ room temp.	3.50 %
UV Resistance	SAE J - 1960	No Degradation
Ozone Effect Rating	ASTM D 1171	0 (No Cracks)
Corrosion Resistance	AMS - 3568	Pass
Other Specifications Available	BMS 1-68	
<b>ELECTRICAL &amp; THERMAL PROPERTIES</b>		
Dielectric Constant	ASTM D 150	1.34
Dielectric Strength	ASTM D 149, Volts/mil	89
Dry Arc Resistance	ASTM D 495, Seconds	90
Volume Resistivity, Ohm - cm	ASTM D 257	10 <sup>14</sup>
Thermal Conductivity, w/m °K (BTU in/hr/ft <sup>2</sup> /°F)	ASTM C 518	0.06 (0.39)
<b>TEMPERATURE RESISTANCE</b>		
Low Temperature Flex at -55°C (-67°F)	ASTM D 1056	Pass
Recommended Use Temperature, °C (°F)	Internal	-55° to 200° (-67° to 392°)

### Standard Thickness Tolerance

Standard Thickness		Tolerance (Inches)
Inches	mm	
1/16	0.063	± 0.016
3/32	0.094	± 0.020
1/8	0.125	± 0.025
3/16	0.188	± 0.030
1/4	0.250	± 0.040
3/8	0.375	± 0.060
1/2	0.500	± 0.050
5/8	0.625	± 0.060
3/4	0.750	± 0.090
1	1.000	± 0.090

### Width Tolerance (Cellular)

Nominal Width (Inches)	Tolerance (w/o PSA)	Tolerance (with PSA)
0 < T ≤ 3	± 0.063	± 0.031
3 < T ≤ 8	± 0.094	± 0.031
8 < T ≤ 12	± 0.125	± 0.031
12 < T ≤ 18	± 0.188	± 0.031
18 < T ≤ 26	± 0.219	± 0.063
26 < T ≤ 36	± 0.250	± 0.063

#### Notes:

- All metric conversions are approximate.
- Additional technical information is available.
- Typical values are a representation of an average value for the population of the property. For specification values contact Rogers Corporation.

‡ Statement of FDA compliance is based solely on the following: BF-1000 (White) silicone foams (i) are compounded and cured under conditions of good manufacturing practice; and (ii) have been subjected to annual extraction testing in accordance with FDA Regulation 21 CFR 177.2600 paragraphs (e) and (f) and found to meet all extractives limitations; both of which are criteria set forth in 21 CFR 177.2600 as necessary for rubber articles intended for repeated use in those areas specified in the regulation.

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