

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. BISCO® Silicones are available in various thicknesses and manufactured in roll form to allow fabricators to easily convert the material to the proper dimensions.

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 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.

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 |
| PHYSICAL | | |
| Color | | Gray* & White |
| Thickness , inches (mm) Tolerance | | 0.062 – 1.00 (1.6 – 25.4) See Reverse |
| Standard Width , inches (mm) | | 36 (914) |
| Density , lb./ft ³ (kg/m ³) | ASTM D 1056 | 13 (208) |
| Compression Force Deflection , psi (kPa) | Force measured @ 25% Deflection ASTM D 1056 | 3 (20.7) |
| Compression Set , % max. | ASTM D 1056 Test D @ 158°F (70°C), 22 hrs. | < 1 |
| | ASTM D 1056 Test D @ 212°F (100°C), 22 hrs. | < 5 |
| Tensile Strength , psi (kPa) | ASTM D 412 | 35 (241) |
| Elongation , % | ASTM D 412 | 90 |
| FLAMMABILITY & OUTGASSING | | |
| Flame Resistance | UL 94 | Listed V-0 and HF-1 |
| Flame Spread Index (L_s) | ASTM E 162 | < 35 |
| Smoke Density (D_s) | ASTM E 662 Tested @ 4.0 minutes | < 50 |
| | Tested @ 1.5 minutes | < 20 |
| Toxic Gas Emissions Rating | SMP-800C & BSS 7239 | Pass |

* Gray color is standard in 0.062 (1.9mm), 0.250 (6.4mm) and 0.500 (12.7mm) thicknesses.

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BISCO® BF-1000 – EXTRA SOFT CELLULAR SILICONE (continued)

| PROPERTY | TEST METHOD | VALUE |
|---|-------------------------------|-------------------------|
| ENVIRONMENTAL PROPERTIES | | |
| 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 |
| Meets Requirements of FDA CFR 177.2600 for Food Contact | | BF-1000 White |
| Other Specifications Available | BMS 1-68 | |
| ELECTRICAL & THERMAL PROPERTIES | | |
| 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 ¹⁴ |
| Thermal Conductivity, BTU in/hr/ft ² /°F (w/m °K) | ASTM C 518 | 0.39 (0.06) |
| TEMPERATURE RESISTANCE | | |
| Low Temperature Flex at -67°F (-55°C) | ASTM D 1056 | Pass |
| Recommended Use Temperature, °F (°C) | SAE J-2236 | -67 to 392 (-55 to 200) |
| Recommended Intermittent High Temperature Use, °F (°C) | Internal | 482 (250) |

Standard Thickness Tolerance

| Standard Thickness | | Tolerance (Inches) |
|--------------------|-------|--------------------|
| Inches | mm | |
| 1/16 | 0.062 | 1.57 ± 0.016 |
| 3/32 | 0.094 | 2.39 ± 0.020 |
| 1/8 | 0.125 | 3.18 ± 0.025 |
| 3/16 | 0.188 | 4.76 ± 0.030 |
| 1/4 | 0.250 | 6.35 ± 0.040 |
| 3/8 | 0.375 | 9.53 ± 0.060 |
| 1/2 | 0.500 | 12.70 ± 0.050 |
| 3/4 | 0.750 | 19.05 ± 0.090 |
| 1 | 1.000 | 25.40 ± 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.

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