Product Data Sheet

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BISCO® BF-1000
Extra Soft Silicone Foam

Sealing Devices Inc.

BISCO® BF-1000 silicone foam's combination of low weight, extra softness, and high compressibility make it an ideal solution for various applications such as sealing outdoor enclosures, electronics protection, cushioning, and vibration isolation. The patented chemistry and cell structure provide a long-term performance advantage.

Features & Benefits:

- Extra softness enables a protective seal that requires less closure force
- Excellent memory and low stress relaxation reduces maintenance costs associated with gasket failures
- Resistance to UV, ozone, and extreme temperatures for consistent performance across many environments
- Rated to most stringent UL flame standards

† *FDA compliant in accordance with regulation 21 CFR 177.2600 in white color*

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
PHYSICAL			
Color	Visual	**White, Gray, Black**	---
Thickness, mm (inches)	Internal	**1.59 - 25.40 (0.063 - 1.000)**	---
Density, kg/m^3 (lb./ft^3)	Internal	192 (12)	**156 - 316 (9.8 - 19.7)**
Compression Force Deflection, kPa (psi)	ASTM D1056	16.5 (2.4)	**7 - 35 (1 - 5)**
Compression Set, %	ASTM D1056 100°C (212°F) / 22 hrs / 50%	1.7	< 5
Tensile Strength, kPa (psi)	ASTM D412	262 (38)	**> 138 (> 20)**
Elongation, %	ASTM D412	86	**> 60**
Water Absorption, %	Internal 2" below water surface / 24 hrs / change in weight	1.4	< 10
FLAMMABILITY			
Flame Resistance	UL 94 (File E83967)	Meets	V-0; HF-1
Flame Spread Index (Is)	ASTM E162	Meets	Flaming Mode < 35
Smoke Density (Ds)	ASTM E662	Meets	1.5 min, Flaming Mode < 100 4.0 min, Flaming Mode < 200
Burn Length	FMVSS 302	Meets	< 100 mm/min
THERMAL			
Temperature Range, °C (°F)	Internal	-55 to +200 (-67 to +392)	---
Thermal Conductivity, W/m °K	ASTM C518	0.048	---
Low Temperature Flex	ASTM D1056 -55°C (-67°F) / 5 hrs	Pass	---
Low Temperature Brittleness	ASTM D746 -55°C (-67°F) / 3 min	Pass	---

Specification values in bold are tested on a batch basis.

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PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
OUTGASSING			
Total Mass Loss (%)	ASTM E595 (4x10* -6 Torr)	3.46	---
Collected Volatile Condesible Materials (CVCM) (%)	ASTM E595 (4x10* -6 Torr)	1.12	---
Water Vapor Regain (%)	ASTM E595 (4x10* -6 Torr)	0.04	---
ELECTRIC			
Dielectric Strength, Volts/mil	ASTM D149	72	---
Dielectric Constant, 1 kHz	ASTM D150	1.5	---
Dissipation Factor, 1 kHz	ASTM D495	0.004	---
Dry Arc Resistance, Seconds	ASTM D495	123	---
Volume Resistivity, Ohm-cm	ASTM D257	10^14	---

Standard Thickness Tolerances

NOMINAL THICKNESS mm (inches)	TOLERANCE mm (inches)
1.59 (0.063)	± 0.508 (± 0.020)
2.38 (0.094)	± 0.508 (± 0.020)
3.18 (0.125)	± 0.635 (± 0.025)
4.76 (0.188)	± 0.762 (± 0.030)
6.35 (0.250)	± 1.016 (± 0.040)
9.53 (0.375)	± 1.524 (± 0.060)
12.70 (0.500)	± 1.270 (± 0.050)
15.88 (0.625)	± 1.524 (± 0.060)
19.05 (0.750)	± 2.286 (± 0.090)
25.40 (1.000)	± 2.286 (± 0.090)

Slit Material and Tape (PSA) Width Tolerances

NOMINAL WIDTH mm (inches)	TOLERANCE mm (inches)
> 0 - 76 (> 0 - 3)	± 1.60 (± 0.063)
> 76 - 203 (> 3 - 8)	± 2.39 (± 0.094)
> 203 - 305 (> 8 - 12)	± 3.18 (± 0.125)
> 305 - 457 (> 12 - 18)	± 4.78 (± 0.188)
> 457 - 660 (> 18 - 26)	± 5.56 (± 0.219)
> 660 - 914 (> 26 - 36)	+ 25.4/- 0 (+ 1/- 0)

VALUE ADDED OFFERINGS

- Adhesive (PSA) lamination
- Slit material/tapes

† 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; (ii) have been subjected to annual extraction testing in accordance with FDA Regulation 21 CRD 177.2600 paragraphs (e) and (f) and found to meet all extractives limitations, both of which are criteria set forth in 21 CFR177.2600 as necessary for rubber articles intended for repeated use in those areas specified in the regulation.

Notes:

*Typical Value - Value is based on historical data. Please note the frequency of testing varies.
**Specification - Applies to physical properties only, which are based on Rogers' internal benchmark and standard BISCO specification values. Additional industry specifications are available as well. All other properties are based on industry standard guidelines.

For more information and to request a sample, please contact our team of experts at solutions@rogerscorp.com

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