

BISCO® BF-1000

BISCO® BF-1000 is a highly compressible, soft silicone foam. The combination of low weight and softness makes it an ideal solution where low closure force and sealing are critical. The patented chemistry and cell structure provide a long term performance advantage.

Features & Benefits, applicable to all BISCO® Cellular Materials (Foams):

- Temperature independency
 - UV/Ozone resistance
 - Rated to most stringent flame standards
- † FDA compliant in accordance with regulation 21 CFR 177.2600

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 - 287 (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)	> 140 (> 20)
Elongation, %	ASTM D412	86	> 60
Water Absorption, %	Internal 2" below water surface / 24 hrs / change in weight	1.4	< 10

Specification values in bold are tested on a batch basis.

Further industry specifications tested in tables below.

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
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

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
THERMAL			
Temperature Range, °C (°F)	Internal	-55 to +200 (-67 to +392)	---
Thermal Conductivity, W/m °K	ASTM D518	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	---

Standard Thickness Tolerances

NOMINAL THICKNESS	TOLERANCE
mm (inches)	mm (inches)
1.59 (0.063)	± 0.381 (± 0.015)
2.38 (0.094)	± 0.508 (± 0.020)
3.18 (0.125)	± 0.508 (± 0.020)
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	TOLERANCE
mm (inches)	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.