

BF1000-2000SH

Extra-Soft and Ultra-Soft Flame Retardant Silicone Foam

Material

Extra-soft and ultra-soft flame retardant silicone foam

Available Grades

BF-1000

BF-2000

Features and Benefits

BF-1000

- 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 colour

BF-2000

- Temperature independency
- UV/ Ozone resistant
- Rated to most stringent flame standards

Material Properties

Physical

Property	Unit	BF-1000		BF-2000		Test Method
		Typical Value	Specification	Typical Value	Specification	
Colour	-	White, Grey, Black	-	Black	-	Visual
Thickness	mm (in)	1.59 – 25.40 (0.063 – 1.000)	-	3.18 – 12.70 (0.125 – 0.500)	-	Internal
Density	kg/m ³ (lb/ft ³)	192 (12)	156 – 316 (9.8 – 19.7)	175 (11)	160 – 240 (9.98 – 14.98)	Internal
Compression Force Deflection	kPa (PSI)	16.5 (2.4)		10 (1.5)	0 – 17 (0 – 2.5)	ASTM D1056
Compression Set	%	1.7	<5	6.9	<12	ASTM D1056
Tensile Strength	kPa (PSI)	262 (38)	>138 (>20)	No data	-	ASTM D412
Elongation at Break	%	86	>60	No data	-	ASTM D412
Water Absorption	%	1.4	<10	1.4	-	Internal 2" below water surface / 24 hrs / change in weight

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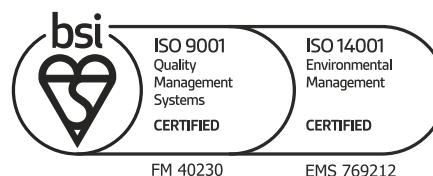
Viking Extrusions Ltd – Ivy Arch Road, Worthing, West Sussex, BN14 8BX, UK

Company Number: 2634482UK

VAT Number: GB587651394

Registered in England & Wales

REV 01 – Last Updated: 21/06/24



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Flammability

Property	Unit	BF-1000		BF-2000		Test Method
		Typical Value	Specification	Typical Value	Specification	
Flame Resistance	-	Meets	V-0; HF-1	Meets	V-0; HF-1	UL 94 (File E83967)
Flame Spread Index	-	Meets	Flaming Mode <35	Meets	Flaming Mode <35	ASTM E162
Smoke Density	-	Meets	1.5 min, Flaming Mode <100 4.0 min, Flaming Mode < 200	Meets	1.5 min, Flaming Mode <100 4.0 min, Flaming Mode < 200	ASTM E162
Burn Length	-	Meets	<100 mm/min	Meets	<100 mm/min	FMVSS 302

Thermal

Property	Unit	BF-1000		BF-2000		Test Method
		Typical Value	Specification	Typical Value	Specification	
Temperature Range	°C (°F)	-55 to + 200 (-67 to + 392)	-	-55 to + 200 (-67 to + 392)	-	Internal
Thermal Conductivity	-	0.048	-	0.048	-	ASTM C518
Low Temperature Flex	-	Pass	-	Pass	-	ASTM D1056 -55°C (-67°F) / 5hrs
Low Temperature Brittleness	-	Pass	-	Pass	-	ASTM D746 -55°C (-67°F) / 3 min

Outgassing

Property	Unit	BF-1000		BF-2000		Test Method
		Typical Value	Specification	Typical Value	Specification	
Total Mass Loss	%	3.46	-	No data	-	ASTM E595 (4x10 ⁻⁶ Torr)
Collected Volatile Condensable Materials (CVCM)	%	1.12	-	No data	-	ASTM E595 (4x10 ⁻⁶ Torr)
Water Vapor Regain	%	0.04	-	No data	-	ASTM E595 (4x10 ⁻⁶ Torr)

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EMS 769212

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Electric

Property	Unit	BF-1000		BF-2000		Test Method
		Typical Value	Specification	Typical Value	Specification	
Dielectric Strength	Volts/mil	72	-	No data	-	ASTM D149
Dielectric Constant	1 kHz	1.5	-	No data	-	ASTM D150
Dissipation Factor	1 kHz	0.04	-	No data	-	ASTM D495
Dry Arc Resistance	Seconds	123	-	No data	-	ASTM D495
Volume Resistivity	Ω·cm	10 ¹⁴	-	No data	-	ASTM D257

These figures are only intended as a guide and should not be used in preparing specifications.

Standard Thickness Tolerances

BF-1000	
Nominal Thickness	Tolerance
mm (inches)	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)	± 1.524 (± 0.060)
15.88 (0.625)	± 1.524 (± 0.060)
19.05 (0.750)	± 2.286 (± 0.090)
25.40 (1.000)	± 2.286 (± 0.090)

BF-2000	
Nominal Thickness	Tolerance
mm (inches)	mm (inches)

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)	± 1.524 (± 0.060)

† 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.

BISCO® Datasheets available at : [BF-1000](#), [BF-2000](#)

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