

BISCO® HT-870SH

Medium-Soft Flame Retardant Silicone Foam

General Information

BISCO® HT-870 medium-soft silicone foam is a firmer and denser version of BF-1000. It maintains the low closure force and conformability characteristics of its soft counterparts, BF-2000 and BF-1000, while simultaneously exhibiting enhanced sealing capabilities. Patented chemistry and cell structure provide a long term performance advantage.

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

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

Material Properties

Property	Test Method	Typical Value*	Specification**
PHYSICAL			
Colour	Visual	Black, Red	-
Thickness, mm (inches)	Internal	1.59 – 12.70 (0.063 – 0.500)	See “Width Tolerance” table
Density, kg/m³ (lb/ft³)	Internal	240 (15)	215 – 327 (13.4 – 20.4)
Compression Force Deflection, kPa (psi)	ASTM D1056	26 (3.8)	7 – 48 (1 – 7)
Compression Set, %	ASTM D1056 100°C (212°F) / 22 hrs / 50%	1.6	<5
Water Absorption, %	Internal 2” below water surface / 24 hrs/ change in weight	0.5	<10
Specification values in bold are tested on a batch basis. Further industry specifications tested in tables below.			
FLAMMABILITY			
Falme Resistance	UL 94 (File E83967)	Meets	V-0
Flame Spread Index (Is)	ASTM E162	Meets	Flaming Mode < 35
Smoke Density (Ds)	ASTM E662	Meets	
Burn Length	FMVSS 302	Meets	< 100 mm/min
THERMAL			
Temperature Range , °C (°F)	Internal	-55 to +200 (-67 to +392)	-
Thermal Conductivity, W/m²K	ASTM C518	0.06	-
Low Temperature Flex	ASTM D1056 -55°C (-67°F) / 3 min	Pass	-
Low Temperature Brittleness	ASTM D1056 -55°C (-67°F) / 3 min	Pass	-

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Standard Thickness Tolerances

Nominal Thickness	Tolerance
mm (inches)	mm (inches)
1.60 (0.063)	± 0.508 (± 0.020)
2.39 (0.094)	± 0.508 (± 0.020)
3.18 (0.125)	± 0.635 (± 0.025)
4.78 (0.188)	± 0.635 (± 0.025)
6.35 (0.250)	± 0.762 (± 0.030)
9.53 (0.375)	± 1.143 (± 0.045)
12.70 (0.500)	± 1.270 (± 0.050)

Slit Material and Tape (PSA) Width Tolerances

Nominal Thickness	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 (± 0.0125)
> 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)

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.

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