Product Data Sheet

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BISCO® HT-840 Extra Firm Silicone Foam

Sealing Devices Inc.

BISCO® HT-840 extra firm silicone foam exhibits enhanced sealing capabilities comparable to sponge rubber. It's designed for use in enclosures requiring a durable, high closure force gasket. Patented chemistry and cell structure provide a long-term performance advantage.

Features & Benefits:

- Enhanced durability and sealing performance
- High tear and tensile strength comparable to a traditional sponge rubber
- Resistance to UV, ozone, and extreme temperatures for consistent performance across many environments
- Rated to most stringent UL flame standards

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
PHYSICAL			
Color	Visual	**Gray**	---
Thickness, mm (inches)	Internal	**1.60 - 6.35 (0.063 - 0.250)**	See "Width Tolerance" table
Density, kg/m³ (lb./ft³)	Internal	448 (28)	**369 - 553 (23.7 - 34.5)**
Compression Force Deflection, kPa (psi)	ASTM D1056	142 (20.6)	**110 - 179 (16 - 26)**
Compression Set, %	ASTM D1056 100°C (212°F) / 22 hrs / 50%	1.8	**< 5**
Water Absorption, %	Internal 2" below water surface / 24 hrs / change in weight	0.5	< 5
FLAMMABILITY			
Flame Resistance	UL 94 (File E83967)	Meets	V-0
Flame Spread Index (Is)	ASTM E162	Meets	Flaming Mode < 35
Smoke Density (Ds)	ASTM E662	Meets	Flaming Mode, 1.5 min, < 100 Flaming Mode, 4.0 min, < 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	0.09	---
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)	2.08	---
Collected Volatile Condesible Materials (CVCM) (%)	ASTM E595 (4x10* -6 Torr)	0.57	---
Water Vapor Regain (%)	ASTM E595 (4x10* -6 Torr)	0.01	---
ELECTRIC			
Dielectric Strength, Volts/mil	ASTM D149	57	---
Dielectric Constant, 1 kHz	ASTM D150	1.8	---
Dissipation Factor, 1 kHz	ASTM D495	0.006	---
Dry Arc Resistance, Seconds	ASTM D495	149	---
Volume Resistivity, Ohm-cm	ASTM D257	10^14	---

Standard Thickness Tolerances

NOMINAL THICKNESS mm (inches)	TOLERANCE 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)

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

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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