ROGERS CORPORATION

BISCO® Silicones

High Performance Foams Division

Typical Product Properties

BISCO® HT-800 – MEDIUM CELLULAR SILICONE

HT-800 is a highly versatile, medium firmness silicone that offers the lightness of a foam, with the enhanced sealing capabilities of a traditional sponge rubber. It is used to seal and protect various outdoor communication, electronics, and lighting enclosures, while providing protection against wind-driven rain and fire. The material is also used to reduce shock or isolate vibration.

Features and Benefits

- Excellent memory and low stress relaxation reduces maintenance costs associated with gasket failures due to compression set and softening.
- Resistance to ultraviolet light, ozone, extreme temperatures, and flame enables consistent performance in all environments.
- Compact cell structure and unique formulation provides enhanced sealing performance to resist penetration of fine particles and wind-driven rain.
- FDA compliant in accordance with FDA Regulation 21 CFR 177.2600. ǂ

Applications

- Environmental seals to protect against penetration of dust, moisture, air, or light within outdoor enclosures such as lighting fixtures, HVAC units, and electronic cabinets
- Vibration isolators in electronic components and transportation vehicles
- Shock absorbing cushions and gaskets

Installation

- Available with a pressure-sensitive adhesive on one or two sides to allow easy application to a variety of surfaces.

BISCO® HT-800		
Property	**Test Method**	**Typical Value**
PHYSICAL		
Color		Black, Gray & Red*
Thickness, inches (mm) **Tolerance**		1/32 – 1/2 (0.80 – 12.70) See Reverse
Standard Width, inches (mm)		36 (914)
Density, lb./ft³ (kg/m³)	ASTM D 1056	22 (352)
Compression Force Deflection, psi (kPa)	Force measured @ 25% Deflection ASTM D 1056	9.0 (62.0)
Compression Set, % max.	ASTM D 1056 Test D @ 158°F (70°C) ASTM D 1056 Test D @ 212°F (100°C)	< 1 < 5
Tensile Strength, psi (kPa)	ASTM D 412	45 (310)
Elongation, %	ASTM D 412	80
FLAMMABILITY & OUTGASSING		
Flame Resistance	UL 94	Listed V-0 and HF-1
Flame Spread Index (L_s)	ASTM E 162	< 25
Smoke Density (D_s)	ASTM E 662 Tested @ 4.0 minutes Tested @ 1.5 minutes	 < 50 < 20
Toxic Gas Emissions Rating	SMP-800C	Pass

* Red color not available as standard for 1/32" (0.80mm)

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BISCO® HT-800 – MEDIUM CELLULAR SILICONE (continued)

PROPERTY	TEST METHOD	VALUE
Environmental Properties		
Water Absorption	Internal: 24 hrs @ room temp.	1.40 %
Electrical & Thermal Properties		
Dielectric Constant	ASTM D 150	1.42
Dielectric Strength	ASTM D 149, Volts/mil	91
Dry Arc Resistance	ASTM D 495, Seconds	92
Volume Resistivity, Ohm - cm	ASTM D 257	10^{14}
Thermal Conductivity, BTU in/hr/ft² /°F (w/m °K)	ASTM C 518	0.63 (0.09)
Temperature Resistance		
Low Temperature Flex at -67°F (-55°C)	ASTM D 1056	Pass
Recommended Use Temperature, °F (°C)	SAE J-2236	-67° to 392° (-55° to 200°)
Recommended Intermittent High Temperature Use, °F (°C)	Internal	482° (250°)

Standard Thickness Tolerance

Standard Thickness			Tolerance (Inches)
Inches		mm	
1/32	0.031	0.8	± 0.015
1/16	0.062	1.57	± 0.020
3/32	0.094	2.39	± 0.020
1/8	0.125	3.18	± 0.025
3/16	0.188	4.76	± 0.025
1/4	0.250	6.35	± 0.030
3/8	0.375	9.53	± 0.045
1/2	0.500	12.70	± 0.050

Width Tolerance (Cellular)

Nominal Width (Inches)	Tolerance (w/o PSA)	Tolerance (with PSA)
$0 < T \leq 3$	± 0.063	± 0.031
$3 < T \leq 8$	± 0.094	± 0.031
$8 < T \leq 12$	± 0.125	± 0.031
$12 < T \leq 18$	± 0.188	± 0.031
$18 < T \leq 26$	± 0.219	± 0.063
$26 < T \leq 36$	± 0.250	± 0.063

Notes:

1. All metric conversions are approximate.
2. Additional technical information is available.
3. Typical values are a representation of an average value for the population of the property. For specification values contact Rogers Corporation.

ǂ Statement of FDA compliance is based solely on the following, HT-800 (Gray) silicone foams (i) are compounded and cured under conditions of good manufacturing practice; and (ii) have been subjected to annual extraction testing in accordance with FDA Regulation 21 CFR 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.

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