

## BISCO® HT-800 – Medium Cellular Silicone

## Typical Product Properties

BISCO® 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.

### 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
<b>PHYSICAL</b>		
<b>Color</b>		Black, Gray & Red*
<b>Thickness</b> , mm (inches) <b>Tolerance</b>		0.80 – 12.70 (1/32 – 1/2) See Reverse
<b>Standard Width</b> , mm (inches)		914 (36)
<b>Density</b> , kg/m <sup>3</sup> (lb./ft <sup>3</sup> )	ASTM D 1056	352 (22)
<b>Compression Force Deflection</b> , kPa (psi)	Force measured @ 25% Deflection ASTM D 1056	62.0 (9.0)
<b>Compression Set</b> , % max.	ASTM D 1056 Test D @ 70°C (158°F)	< 1
	ASTM D 1056 Test D @ 100°C (212°F)	< 5
<b>Tensile Strength</b> , kPa (psi)	ASTM D 412	310 (45)
<b>Elongation</b> , %	ASTM D 412	80
<b>FLAMMABILITY &amp; OUTGASSING</b>		
<b>Flame Resistance</b>	UL 94	Listed V-0 and HF-1
<b>Flame Spread Index (L<sub>s</sub>)</b>	ASTM E 162	< 25
<b>Smoke Density (D<sub>s</sub>)</b>	ASTM E 662	
	Tested @ 4.0 minutes	< 50
	Tested @ 1.5 minutes	< 20
<b>Toxic Gas Emissions Rating</b>	SMP-800C	Pass

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

The information contained in this Data Sheet is intended to assist you in designing with Rogers' BISCO Silicone Materials. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on the Data Sheet will be achieved by a user for a particular purpose. The user should determine the suitability of Rogers' BISCO Silicone Materials for each application. The Rogers logo, Helping power, protect, connect our world and BISCO are trademarks of Rogers Corporation or one of its subsidiaries. © 2003, 2006, 2007, 2009, 2013, 2014, 2017 Rogers Corporation, All rights reserved. Printed in U.S.A. 0117-PDF, Publication #180-070

# BISCO® HT-800 – Medium Cellular Silicone (continued)

PROPERTY	TEST METHOD	VALUE
<b>Environmental Properties</b>		
Water Absorption	Internal: 24 hrs @ room temp.	1.40 %
<b>Electrical &amp; Thermal Properties</b>		
Dielectric Constant	ASTM D 150	1.42
Dielectric Strength	ASTM D 149, kV/m (Volts/mil)	3583 (91)
Dry Arc Resistance	ASTM D 495, Seconds	92
Volume Resistivity, Ohm – cm (ohm-in)	ASTM D 257	10 <sup>14</sup> (3.94 x 10 <sup>13</sup> )
Thermal Conductivity, w/m °K (BTU in/hr/ft <sup>2</sup> /°F)	ASTM C 518	0.09 (0.63)
<b>Temperature Resistance</b>		
Low Temperature Flex at -55°C (-67°F)	ASTM D 1056	Pass
Recommended Use Temperature, °C (°F)	Internal	-55° to 200° (-67° to 392°)

### Standard Thickness Tolerance

Standard Thickness			Tolerance	
mm	Inches		mm	inches
0.8	1/32	0.031	-0.127, +0.381	-0.005, +0.015
1.60	1/16	0.063	±0.508	±0.020
2.39	3/32	0.094	±0.508	±0.020
3.18	1/8	0.125	±0.635	±0.025
4.76	3/16	0.188	±0.635	±0.025
6.35	1/4	0.250	±0.762	±0.030
9.53	3/8	0.375	±1.143	±0.045
12.70	1/2	0.500	±1.27	±0.050

### Width Tolerance (Cellular)

Nominal Width		Tolerance (w/o PSA)		Tolerance (with PSA)	
mm	inches	mm	inches	mm	inches
0 < T ≤ 76	0 < T ≤ 3	±1.60	±0.063	±0.787	±0.031
76 < T ≤ 203	3 < T ≤ 8	±2.39	±0.094	±0.787	±0.031
203 < T ≤ 305	8 < T ≤ 12	±3.18	±0.125	±0.787	±0.031
305 < T ≤ 457	12 < T ≤ 18	±4.78	±0.188	±0.787	±0.031
457 < T ≤ 660	18 < T ≤ 26	±5.56	±0.219	±1.600	±0.063
660 < T ≤ 914	26 < T ≤ 36	±6.35	±0.250	±1.600	±0.063

#### Notes:

- All metric conversions are approximate.
- Additional technical information is available.
- Typical values should not be used for specification limits.

‡ 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.

The information contained in this Data Sheet is intended to assist you in designing with Rogers' BISCO Silicone Materials. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on the Data Sheet will be achieved by a user for a particular purpose. The user should determine the suitability of Rogers' BISCO Silicone Materials for each application. The Rogers logo, Helping power, protect, connect our world and BISCO are trademarks of Rogers Corporation or one of its subsidiaries. © 2003, 2006, 2007, 2009, 2013, 2014, 2017 Rogers Corporation, All rights reserved. Printed in U.S.A. 0117-PDF, Publication #180-070



**Seal & Design  
Able Division**  
5533 Steeles Avenue West Unit 11  
Toronto, Ontario M9L 1S7  
Ph: (416) 741-0750  
Gasket@AbleSealAndDesign.com



**Seal & Design  
Corporate Headquarters**  
4015 Casilio Parkway  
Clarence, NY 14031  
Ph: (716) 759-2222  
Info@SealAndDesign.com  
www.SealAndDesign.com



**Seal & Design  
Higbee Division**  
6741 Thompson Rd N  
Syracuse, NY 13221  
Ph: (315) 432-8021  
Sales@Higbee-Inc.com