

# BISCO® MF1® Industrial Grade Bun Cellular Silicone Foam

BISCO® MF1® foam provides a reliable, longevity, and safe alternative to other elastomeric materials. The firmness ranges of MF1 foams allow engineers to optimize designs to reduce cost. It is a bun-based material that utilizes proprietary silicone technology to deliver a product which maintains firmness and thickness over long periods of time. Material is easily skived to thickness.

PROPERTY*	TEST METHOD	MF1-35 (SOFT)	MF1-55 (MEDIUM)	MF1-75 (FIRM)
<b>PHYSICAL</b>				
Color	Visual	White	White or Gray	White
Density, kg/m <sup>3</sup> (lb/ft <sup>3</sup> )	ASTM D1056	80 (5.0)	96 (6.0)	112 (7.0)
Compression Force Deflection, kPa (psi)	ASTM D1056	1.4 - 8.3 (0.2 - 1.2)	2.8 - 10.3 (0.4 - 1.5)	4.1 - 12.4 (0.6 - 1.8)
Compression Set, %	ASTM D1056 100°C (212°F) / 22 hrs / 50%	1.5	1.5	1.5
Tensile Strength, kPa (psi)	ASTM D412	86 (12.5)	86 (12.5)	93 (13.5)
Elongation, %	ASTM D412	45	45	35
Tear Strength, PPI	ASTM D624	>2.0	>2.0	>2.0
Water Absorption, %	ASTM D570	< 5.0	< 5.0	< 5.0
Flame Resistance	FVMSS302 - Self Extinguishing	Pass	Pass	Pass
Antifungal	ASTM G21	0 Rating - No Fungal Growth	0 Rating - No Fungal Growth	0 Rating - No Fungal Growth
<b>PROPERTY</b>				
<b>ELECTRIC</b>				
Dielectric Breakdown	ASTM D149 Method C: Slow rate of rise (500 v/s)	43	45	45
Volume Resistivity	ASTM D257)	7.0 X 10 <sup>13</sup>	7.0 X 10 <sup>13</sup>	7.0 X 10 <sup>13</sup>
<b>PROPERTY</b>				
<b>THERMAL</b>				
Thermal Conductivity, W/m*K Uncompressed	ASTM C518	0.036	0.037	0.043
Low Temperature Flex -55°C (-67°F)	ASTM D1056	Pass	Pass	Pass
Recommended Constant Use, °C (°F)		200 (392)	200 (392)	200 (392)
<b>CERTIFICATIONS</b>				
UL	UL94 V-0 and HF-1	N/A	Gray Only <sup>1</sup>	N/A
FDA†	CFR177.2600	Compliant	Compliant	Compliant

† Statement of FDA compliance is based solely on the following: MF1 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 CFR 177.2600 as necessary for rubber articles intended for repeated use in those areas specified in the regulation.

\*Typical Value - Value is based on historical data. Please note the frequency of testing varies. Typical values should not be used for specification limits.  
<sup>1</sup>UL94 V-0 and HF1 - Gray Color only, minimum thickness 2.38mm (0.094 inches).

Additional industry specifications are available. All other properties are based on industry standard guidelines.  
 All metric conversions are approximate. Reference US customary units for official values and tolerances.