

AUBURN PRODUCT NEWS

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HT-840 Extra Firm Cellular Silicone Foam

Introduction:

HT-840 is an extra-firm grade silicone foam that offers improved durability and sealing. It is used to seal or protect various outdoor communication, lighting or electronic enclosures, while providing protection against small dust particles, wind-driven rain or fire. The material offers higher tear strength and tensile strength than lighter grade foams. Auburn silicone foams are available in various thicknesses and manufactured in roll form which can be easily converted into tapes, sheets or custom die cut gaskets.

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 Auburn silicone foams to perform consistently in all environments.
- Compact cell structure and unique formulation provides enhanced sealing performance with resistance to penetration of fine particles or wind-driven rain.
- Available in roll goods, slit tapes or custom die cut parts. All Auburn silicone foams are available either plain or with an adhesive backing applied to one or both surfaces.

Applications:

- Environmental seals to protect against penetration of dust, moisture, air, or light into outdoor enclosures such as lighting fixtures, HVAC units or electronic cabinets.
- Enclosures requiring a more durable, high closure force gasket.
- Pressure pads requiring greater conformability and even pressure distribution at high temperatures.

Typical Product Data Sheet

PROPERTY	TEST METHOD	TYPICAL VALUE
Physical		
Color		Gray
Thickness, Inches (mm)		1/16 – 1/4 (1.6 – 6.4)
Tolerance		See Reverse
Standard Width, Inch (mm)		28 (449)
Density, lb./ft ³ (kg/m ³)	ASTM D 1056	27 (432)
Compression Force Deflection, psi (Kpa)	Force measured @ 25% Deflection ASTM D 1056	22.0 (151.7)
Compression Set, % Max.	ASTM D 1056 – Test D @ 158 F (70°C)	< 1
	ASTM D 1056 – Test D @ 212°F (100°C)	< 5
Tensile Strength, psi (kPa)	ASTM D 412	60 (414)
Elongation, %	ASTM D 412	60
Flammability & Outgassing		
Flame Resistance	UL 94	Listed V-0 and HF-1
Flame Spread Index (Ls)	ASTM E 162	< 25
Smoke Density (Ds)	ASTM E 162	< 50
	Tested @ 4.0 minutes Tested @ 1.5 minutes	< 20
Toxic Gas Emissions Rating	SMP-800C	Pass

AUBURN HT-840 – EXTRA FIRM CELLULAR SILICONE FOAM

NEW! UL-Listed Silicone Foam Gasketing from Auburn. . .

PROPERTY	TEST METHOD	VALUE
Environmental Properties		
Water Absorbtion	Internal: 24 hrs @ room temp.	0.20 %
UV Resistance	SAE J-1960	No Degradation
Ozone Effect Rating	ASTM D1171	0 (No Cracks)
Corrosion Resistance	AMS-3568	Pass
Electrical and Thermal Properties		
Dielectric Constant, K' ("DK")	ASTM D 150	1.58
Dielectric Strength, volts/mil	ASTM D149 Volts/mil	95
Dry Arc Resistance	ASTM D 495, Seconds	98
Volume Resistivity, ohm/cm	ASTM D257	10 ¹⁴
Thermal Conductivity, (BTU-in./hr. ft ² -F) W/m-K	ASTM C518	0.84 (0.12)
Temperature Resistance		
Low Temperature Flex @ -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	
1/16	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	± 0.040

Width Tolerance (Cellular)

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

Notes:

- 1) All metric conversations 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 Auburn Manufacturing Company

The Information contained in this data sheet is intended to assist you in designing with Flame Retardant Silicone Foams from Auburn. 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 Flame Retardant Silicone Foams from Auburn for each application.