

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

UL Recognized, MH13898

| PROPERTY | TEST METHOD | VALUE |
|--|-------------------------------|-------------------------|
| Environmental Properties | | |
| Water Absorption | 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 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 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.