

# AUBURN PRODUCT NEWS

## Auburn Manufacturing Co.

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## HT-870 Soft Cellular Silicone Foam

### Introduction:

Compressibility, softness and durability allow HT-870 adapt to various environments, making it an ideal choice for sealing outdoor enclosures, protecting electronics from shock and heat, and providing cushioning or vibration isolation for various applications. HT-870 Soft Silicone Foam from Auburn is 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.
- ▶ Softness allows designers to use less force to seal enclosures and still protect their devices for the environment.
- ▶ High compressibility allows material to conform to variable width gaps and awkward shapes, thereby allowing engineers more design flexibility.
- ▶ 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.
- ▶ Vibration isolators in electronic components or transportation vehicles.
- ▶ Shock absorbing cushions, pads or gaskets.

### Typical Product Data Sheet

PROPERTY	TEST METHOD	TYPICAL VALUE
<b>Physical</b>		
<b>Color</b>		Grey
<b>Thickness, Inches (mm)</b>		1/32 - 1/2 (0.8 – 12.7)
Tolerance		See Reverse
<b>Standard Width, Inch (mm)</b>		36 (914)
<b>Density, lb./ft<sup>3</sup> (kg/m<sup>3</sup>)</b>	ASTM D 1056	23 (368)
<b>Compression Force Deflection, psi (Kpa)</b>	Force measured @ 25% Deflection ASTM D 1056	16.0 (110.3)
<b>Compression Set, % Max.</b>	ASTM D 1056 – Test D @ 158 F (70°C)	< 1
	ASTM D 1056 – Test D @ 212°F (100°C)	< 5
<b>Tensile Strength, psi (kPa)</b>	ASTM D 412	50 (345)
<b>Elongation, %</b>	ASTM D 412	55
<b>Flammability &amp; Outgassing</b>		
<b>Flame Resistance</b>	UL 94	Listed V-0 and HF-1
<b>Flame Spread Index (Ls)</b>	ASTM E 162	< 25
<b>Smoke Density (Ds)</b>	ASTM E 162	
	Tested @ 4.0 minutes	< 50
	Tested @ 1.5 minutes	< 20
<b>Toxic Gas Emissions Rating</b>	SMP-800C	Pass

# AUBURN HT-870 – SOFT CELLULAR SILICONE FOAM

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

PROPERTY	TEST METHOD	VALUE
<b>Environmental Properties</b>		
Water Absorbtion	Internal: 24 hrs @ room temp.	0.80 %
UV Resistance	SAE J-1960	No Degradation
Ozone Effect Rating	ASTM D1171	0 (No Cracks)
Corrosion Resistance	AMS-3568	Pass
Meets Requirements of FDA CFR 177.2600 for Food Contact		HT-820 Gray
<b>Electrical and Thermal Properties</b>		
Dielectric Constant, K' ("DK")	ASTM D 150	1.50
Dielectric Strength, volts/mil	ASTM D149 Volts/mil	93
Dry Arc Resistance	ASTM D 495, Seconds	96
Volume Resistivity, ohm/cm	ASTM D257	10 <sup>14</sup>
Thermal Conductivity, (BTU-in./hr. ft <sup>2</sup> -F) W/m-K	ASTM C518	0.75 (0.11)
<b>Temperature Resistance</b>		
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	
1/32	0.031	0.80	± 0.015
1/16	0.062	1.57	± 0.020
3/32	0.093	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

### 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.