



# PRODUCT NEWS

## Auburn Manufacturing Company

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## Thermal Interface Gasket Material

### TF1870 SERIES

#### Thermally Conductive Silicone-Coated Fabric

**ThermaCool® TF1870 from Auburn** series are thermally conductive silicone-coated fiberglass fabrics offering high temperature resistance and conformability as a low-cost heat sink gasket. The fiberglass fabric supports the silicone rubber and aids in dimensional stability and cut-through resistance.

The **ThermaCool TF1870 series** is specially designed to provide the following features:

- Thermal conductivity rating of 1.3 W/mK (low-cost fabric)
- Clean/low-cost replacement for thermal grease
- Assembly time reduced by 70% or more over mica and grease method
- UL listing simplifies complete electronic system approval (94 V-0)
- Electrically isolates power source from heat sink device
- Non-toxic for increased safety and reliability
- Material can be ordered with pressure-sensitive adhesive on one side for ease in placement

#### Available Sizes

Standard thickness: 0.007 and .009 in. (0.18 and 0.22 mm)  
Master roll size: 36 in. x 36 yd. (914 mm x 33 meters)

#### Available Sizes

Standard thickness: 0.007 and 0.009 in. (.18 and .22 mm)  
Master roll size: 18 in. x 36 yd. (457 mm x 33 meters)

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Your Exact Specifications

### Applications

- Telecommunications
- Computers
- Automotive electronics
- Electrical insulation
- Military
- Medical
- Electronic modules
- Power supplies

## TF1870 Series — Properties

Performance tests are run using standard test procedures.

The values presented are typical values and should not be used for specification purposes.

Property	Test Method	TF1877	TF1879
Color	Visual	Gray	Gray
Thickness, nominal in.	ASTM D374	.007 (0.18)	.009 (0.22)
Thermal Conductivity: W/mK	ASTM E1530 @ 300 psi	1.3	1.3
Thermal Impedance: °C in.2 /W (1/16")	ASTM E1530	0.23	0.29
Break Strength: psi	ASTM D412	100	100
Elongation: %	ASTM D412	< 5	< 5
Dielectric Strength: volts/mil	ASTM D2240	3000	3500
Volume Resistivity: ohm-cm	ASTM D149	1x10 <sup>14</sup>	1x10 <sup>14</sup>
Operating Temperature: °F	-----	-80 to +400	-80 to +400
UL Listing Recognition	UL94	V-0	V-0

### Options (subject to minimum order requirements)

**Adhesive base:** Low tack silicone pressure-sensitive adhesive and solvent-resistant acrylic pressure-sensitive adhesive on one side. (PSA increases thermal resistance by 0.05 C/W.)

**Important Instructions:** Because Auburn cannot anticipate or control every potential application, we strongly recommend testing of this product under individual application conditions prior to commercial use.

**For PSA options:** Surfaces must be clean and free of oil, grease, moisture, dust and dirt. Isopropyl alcohol is good for cleaning the surface.

**Recommended service temperature of base fabric is:** -80°F to 400°F (-62°C to 204°C).

**Shelf Life:** 10 years after the date of manufacture when stored in original packaging at temperatures up to 95°F (35°C) and 70% relative humidity (see applicable data sheets for pressure-sensitive adhesive option).