



PRODUCT NEWS

Auburn Manufacturing Company

29 Stack Street, Middletown, CT 06457
Customer Service: (800) 427-5387
Tel: (860) 346-6677 Fax: (860) 346-
website: www.auburn-mfg.com
email: info@auburn-mfg.com

Thermal Interface Gasket Material

TF400 SERIES

Thermally Conductive Silicone-Coated Fabric

ThermaCool® TF400 series from Auburn are thermally conductive, silicone-coated fabrics offering high temperature capability and conformability in a heat sink gasket. Fiberglass fabric supports the thermally conductive silicone rubber impregnation and adds dimensional stability and cut-through resistance. The thin cross-sections keep thermal resistance low and save space while providing electrical isolation.

The ThermaCool TF400 series is specially designed to provide the following features:

- Thermal conductivity rating of .9 W/mK (medium performance fabric)
- Assembly time reduced by 70% or more over mica and grease method
- Optional pressure-sensitive adhesive available for easier assembly
- UL listing simplifies completed electronic system approval (94 V-0)
- Non-toxic for increased safety and reliability
- Total performance range available from standard to high end
- Electrically isolates power sources from heat sink devices
- Improved formulation provides competitive thermal and dielectric strength values
- Mil Spec 49456A, Type 1 (Grade) is 3

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 Direct Source for Custom
Gaskets and Seals Die Cut to Your
Exact Specifications

APPLICATIONS

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

TF400 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	Value TF407	Value TF409
Color	Visual	Gray	Gray
Thickness, nominal in.	ASTM D374	.007 (.18)	.009 (.22)
Thermal Conductivity: W/mK	ASTM E1530	0.9	0.9
Thermal Impedance: °C in.2 /W (1/16")	ASTM E1530	0.31	0.39
Break Strength: psi	ASTM D412	100	100
Elongation: %	ASTM D412	< 5	< 5
Dielectric Strength: volts/mil	ASTM D2240	3500	4000
Volume Resistivity: ohm-cm	ASTM D149	1x10 ¹⁴	1x10 ¹⁴
Operating Temperature: °F	ASTM D257	-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).