



**AAVID  
THERMALLOY**

**Aavid Ultrastick™**  
Phase-Change  
Thermal Interface Compound

## ULTRASTICK™ PHASE-CHANGE THERMAL INTERFACE COMPOUND

Aavid's Ultrastick™ is a unique phase-change thermal interface material that surpasses grease in thermal performance and long-term stability. This solid, silicone-free, paraffin-based thermal compound changes phase at 60°C, with a concurrent volumetric expansion that fills gaps between the mating surfaces. Ultrastick comes in a convenient applicator bar, allowing for neat, fast application to both heat sink and component surfaces. One cost-effective application leaves a thin, film-like deposit, providing excellent heat transfer and low interface thermal resistance.



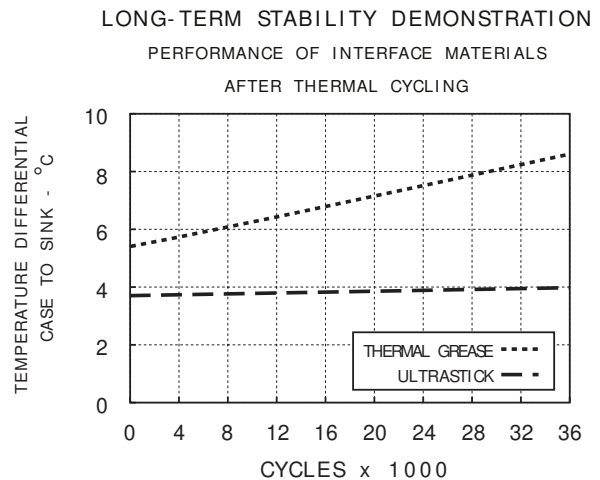
### FEATURES:

- Thermal resistance 20% lower than thermal grease, with significant long-term reliability benefits
- Excellent heat transfer properties, consistent at mounting pressures from less than 5 psi to more than 200 psi
- No run-out, migration, dry-out, or flaking that can occur with typical thermal grease
- High-temperature (60°C) phase change simplifies storage and handling
- Non-toxic and inert; Material Safety Data Sheet (MSDS) available upon request
- Electrically nonconductive
- Easy to use and dry to the touch after application, reducing labor costs
- Easily removed for rework

### ORDERING INFORMATION:

Part Number	Description
100300F00000	Ultrastick™, 47.5 Gram Bar

### THERMAL PERFORMANCE:



EACH CYCLE 40°C TO 90°C - 7 MIN. RISE, 3 MIN. FALL

FOR MORE INFORMATION, VISIT OUR WEB SITE: [WWW.AAVIDTHERMALLOY.COM](http://WWW.AAVIDTHERMALLOY.COM)  
TEL: (603) 224-9988



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**APPLICATION INSTRUCTIONS**

1. Advance compound approximately 3/8" to 1/2" beyond end of dispenser.
2. Hold Ultrastick™ applicator bar with a finger on slide tab and bar at a 45° angle to the interface surface. Apply gentle pressure (approximately 5 lbs. of force) on the bar while moving it across the interface surface. If the area to be coated is wider than the width of the bar, apply a second swipe across uncoated areas. Follow the same procedure for the mating interface surface. Interface surfaces may then be joined and the assembly clamped together per the assembly requirements.
3. The compound may exhibit some degree of voiding. The thermal compound will "cold flow" with the interface joining pressure. Once the assembly experiences a thermal cycle through 60°C (140°F), the thermal compound will flow to fill any remaining voids or air gaps. It is not necessary to reapply additional amounts of compound to attempt to totally cover the interface surface.
4. Each Ultrastick™ bar contains sufficient compound for approximately 1000 in<sup>2</sup> of surface coverage, when properly applied. If less coverage is being achieved in production, it may be an indicator of excessive compound application. As with traditional thermal grease, an overabundance of interface compound may be counterproductive.



**ULTRASTICK™ PROPERTIES:**

Properties	Value
Color	Opaque White
Temperature Range	-40°C to +200°C
Thermal Impedance	0.03°C-in <sup>2</sup> /W @ 20 psi 0.02°C-in <sup>2</sup> /W @ 100 psi
Shelf Life	Indefinite*
Net Weight	22.7 gm (0.8 oz)
Volume Resistivity	1.0 x 10 <sup>15</sup> Ohm-cm
Dielectric Strength	250 volts/mil
Consistency	Paste
Bleed	0.6 max
Specific Gravity	0.28

\* Recommended max. storage temperature: 40°C (105°F)

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