

**PRODUCT DESCRIPTION:**

AA-SUPERTHERM 195 is a two component, thermally conductive epoxy system recommended for staking transistors, diodes, resistors, integrated circuits and other heat sensitive components to printed circuit boards. This adhesive develops strong, durable, high impact bonds at room temperature which improve heat transfer while maintaining electrical insulation.

AA-SUPERTHERM 195 bonds readily to itself and to metals, silica, alumina, sapphire and other ceramics, glass, plastics and many other materials, because its coefficient of thermal expansion provides a good match for those materials over a fairly wide temperature range.

Fully cured AA-SUPERTHERM 195 provides excellent resistance to salt solutions, mild acids and alkalis, and many other chemicals including petroleum solvents, lubricating oils, and alcohol.

This adhesive complies with the requirements of NASA Outgassing Specification when tested according to ASTM E-595-90.

**PRODUCT DESCRIPTION:**

<b>Appearance</b>	White
<b>Cure Type</b>	Heat cure or Room Temperature
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• Strong</li> <li>• Durable</li> <li>• high-impact bonds</li> <li>• Fully cured</li> <li>• Excellent resistance to many chemicals</li> </ul>
<b>Mix Ratio by weight</b>	100:15 / Resin:Hardener
<b>Substrates</b>	metals, silica, alumina, sapphire and other ceramics, glass, plastics and many other materials
<b>Typical Application</b>	Extremely sensitive thermal cooling applications

**CURE SCHEDULE:**

<b>2 – 4 Hours</b>	@ 65°C
<b>24 Hours</b>	@ 25°C

**AVAILABILITY:**

This epoxy can be supplied in many different packages.

**MISC PROPERTIES:**

<b>CTE, linear</b>	22.2 $\mu\text{in/in-}^\circ\text{F}$ @ RT
<b>Hardness, Shore D</b>	80
<b>Adhesive Bond Strength</b>	1700 psi

**UNCURED PROPERTIES:**

<b>Viscosity @ 25 °C, 77.0 °F</b>	5000 cP
<b>Specific Gravity, mixed</b>	1.30 g/cc
<b>Pot Life</b>	60 minutes
<b>Solid Content</b>	100%
<b>Outgassing, NASA, %CVCM</b>	0.02 (3 hrs @ 65°C)
<b>Outgassing, NASA, %TWL</b>	0.6 (3 hrs @ 65°C)

**THERMAL PROPERTIES:**

<b>Thermal Conductivity</b>	13.9 BTU-in/hr-ft <sup>2</sup> -°F 2.00 W/m-K
<b>Glass Transition Temperature Tg</b>	54.0 °C, 129 °F
<b>Maximum Service Temperature, Air</b>	115 °C, 239 °F
<b>Minimum Service Temperature, Air</b>	-70.0 °C, -94.0 °F
<b>Operating Temperature</b>	-40°C to 125°C

**GENERAL INFORMATION:**

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

**HOW TO USE:**

1. Carefully clean and dry all surfaces to be bonded.
2. Apply AA-SUPERTHERM 195 completely mixed adhesive to the prepared surfaces, and gently press these surfaces together. Contact pressure is adequate for strong, reliable bonds; however, maintain contact until adhesive is completely cured.
3. Some separation of components is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
4. Some ingredients in this formulation provided may crystallize when subjected to low temperature storage. A gentle warming cycle of 52°C for 30 minutes prior to mixing components may be necessary. Crystallized epoxy components do not react as well as liquid components and should be re-dissolved prior to use for best results.

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