

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:

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

CURE SCHEDULE:

2 – 4 Hours	@ 65°C
24 Hours	@ 25°C

AVAILABILITY:

This epoxy can be supplied in many different packages.

MISC PROPERTIES:

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

UNCURED PROPERTIES:

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

THERMAL PROPERTIES:

Thermal Conductivity	13.9 BTU-in/hr-ft ² -°F 2.00 W/m-K
Glass Transition Temperature Tg	54.0 °C, 129 °F
Maximum Service Temperature, Air	115 °C, 239 °F
Minimum Service Temperature, Air	-70.0 °C, -94.0 °F
Operating Temperature	-40°C to 175°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.

Atom Adhesives

Email: info@atomadhesives.com

200 Allens Ave, Providence, RI 02903

Phone: (888) 522-6742 - Fax: (877) 522-6742