



A NEW FORCE IN CHEMICAL MANUFACTURING

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TECHNICAL DATA SHEET

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PRODUCT NAME

CT-SME Surface Mount Epoxy Adhesive

PRODUCT RANGE

Part Number	Available Size
CT-SME-10CC-R	Surface Mount Epoxy 10cc Red
CT-SME-30CC-R	Surface Mount Epoxy 30cc Red
CT-SME-4OZ-R	Surface Mount Epoxy 4oz Jar Red
CT-SME-6OZ-R	Surface Mount Epoxy 6oz Cartridge Red



Refer to SDS for product safety guidelines

CT-SME Surface Mount Epoxy Adhesive

Chemtools CT-SME is one part epoxy adhesive system specially design for the bonding of surface mounted devices to printed circuit boards prior to wave soldering.

This easy to use adhesive cures at low temperature with fast cure speed.

Ideally suited to printing a range of dot heights with one stencil thickness and where high wet strength characteristics and high print speeds are necessary.

Excellent adhesion to metal, ceramics and glass-filled epoxy surfaces.

Ideal for electronic assembly

Cure Schedule:

20 to 30 minutes @ 125°C

5 to 10 minutes @ 150°C

Like any heat curing systems, the time required for cure depends on the rate of heating. Cure speed depends on the mass of material to be heated and intimate contact with heat source. Above cure schedule is only suggestion and cure speed may vary based on curing equipment, oven loading and actual oven temperatures.

Adhesive Properties

Viscosity @ 25°C	65,000 – 85,000 cps
Specific Gravity	1.40 – 1.50
Appearance:	Red Viscous Liquid

Isothermal DSC Conversion

5 minutes @ 125°C, % 95 to 100

Physical Properties

Tensile Modulus, psi, ASTM D 882	85,850 – 95,500
Tensile at break, ASTM D882, psi	2,500 – 3,200
Elongation @ break %	2 - 4
Hardness, ASTM D2240 Shore D	85 - 90
Water Absorption, ASTM D570, %	<1
Service Temperature,	- 40 to 150°C

Thermal Properties:

Thermal Shock (-65/+125) °C	100 cycles, Class 3
Coefficient of Thermal Expansion	86 x 10 ⁻⁶ K ⁻¹
Tg, ASTM D3418-82,	140°C

Electrical Properties:

Dielectric Strength	1,800 V/mil
Volume Resistivity	4.6 x 10 ¹⁵ ohm-cm
Surface Resistivity	384 x 10 ¹² Ohm
Dielectric Constant 1 MHz	3.41

Adhesive Properties:

Cured for 30 minutes @ 150°C

Substrates	Shear Strength & Mode of Failure
Steel to Steel	2, 230 psi Cohesive Failure
Glass Filled Epoxy	1,235 psi Substrate Failure

Bond strength achieved in production will vary depending on the SMD component type, dot size and degree of cure of the solder mask as well as type of resist.

Directions For Use

1. This adhesive is suitable for all open squeegee and enclosed head stencil printing system.
2. After storage in a refrigerator the adhesive must be allowed to equilibrate to room temperature before use; typically 2 to 4 hours.
3. Printing conditions should be about 25°C and RH less than 70% for optimum results. Higher temperature will decrease the viscosity and will affect the printing results.
4. Uncured adhesive should only be cleaned from the board with IPA, MEK or Acetone.
5. Cured adhesive can only be removed mechanically with the aid of heat.

Storage:

Store in an original, tightly covered container in clean, dry area. Optimal Storage: 2 to 8°C Storage below 2°C or greater than 8°C can adversely affect product properties.

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