

LOCTITE CT 5030 E&C

August 2016

PRODUCT DESCRIPTION

LOCTITE CT 5030 E&C provides the following product characteristics:

Technology	Epoxy
Technology (Catalyst)	Imidizole
Appearance (Resin)	Silver liquid
Appearance (Catalyst)	Dark amber liquid
Components	Two components - requires mixing
Mix Ratio by weight - Material:Catalyst	100 / 1.5
Product Benefits	<ul style="list-style-type: none"> Electrically conductive Bonds to a wide variety of substrates Resistant to abrasion Crease resistant Excellent adhesion to polyester film Heat resistant after cure Good flexibility
Cure	Heat cure
Application	Conductive Ink
Operating Temperature	-40 to +150 °C
Filler Type	Silver

LOCTITE CT 5030 E&C is designed to provide thin coating material used in shielding and grounding applications. It is also designed for use in creating conductive paths printed directly on matrix boards and ceramic wafers.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties LOCTITE CT 5030 E&C

Viscosity, Brookfield , ASTM D2393, mPa·s (cP)	17,000
Density, g/cm ³	2.7
Flash Point , ASTM D93, °C	74

Part B Properties LOCTITE CAT B97

Viscosity, Brookfield , ASTM D2393, mPa·s (cP)	6,000
Flash Point - See SDS	

Mixed Properties

Density, ASTM-D-792, , g/cm ³	2.6
Coverage , wet product, cm ² /gm/mil	148
Working Life, 100 g mass @ 25°C, hours	48
Shelf Life @ 25 °C, months	9
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

2 hours @ 80°C
1 hour @ 90°C
30 minutes @ 100°C
15 minutes @ 125°C
5 minutes @ 150°C

For optimum performance at temperature above 2 to 4°C, a post cure of hours at °C is recommended.

Alternate cure schedules may also be possible. Contact your Henkel representative for further information.

LOCTITE CT 5030 E&C contains solvent which must evaporate before heat cure to avoid blistering

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Electrical Properties

Sheet Resistance , ohms/sq/mil	0.05
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GENERAL INFORMATION

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

DIRECTIONS FOR USE

- Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
- 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.
- Accurately weigh resin and hardener into a clean container in the recommended ratio. Weighing apparatus having an accuracy in proportion to the amounts being weighed should be used.
- Blend components by hand, using a kneading motion, for 2 to 3 minutes and scrape the bottom and sides of the mixing container frequently to produce a uniform mixture.
- LOCTITE CT 5030 E&C can be applied by brushing, spraying or screen printing.
- If thickening occurs due to solvent loss or if a lower viscosity is desired for spray or other application, thin with Butyl cellosolve acetate. .
- Solvent-thinned compound should be used promptly or periodically agitated to avoid filler settling.

Storage

Store in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling. Usable shelf life may vary depending on method of application and storage conditions

Optimal Storage : 25 °C

Certain resins and hardeners are prone to crystallization. If crystallization does occur, warm the contents of the shipping container to 50 to 60°C until all crystals have dissolved. Be sure the shipping container is loosely covered during the warming stage to prevent any pressure build-up. Allow contents to cool to room temperature before continuing.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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