

LOCTITE ABLESTIK CE3850

November 2016

PRODUCT DESCRIPTION

LOCTITE ABLESTIK CE3850 provides the following product characteristics:

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|-----------------------------|---|
| Technology | Epoxy |
| Appearance | Silver |
| Filler Type | Silver |
| Product Benefits | <ul style="list-style-type: none">• One component• Electrically conductive• Long work life• Excellent contact resistance• Fast cure |
| Cure | Heat cure |
| Application | Assembly |
| Typical Package Application | SMD and Component attach |
| Substrates | Sn, Ni, Organic, Solder and OSP-Cu |

LOCTITE ABLESTIK CE3850 electrically conductive adhesive is designed for circuit assembly applications. It is specifically recommended for mounting low cost tin (Sn) and nickel (Ni) finished components onto conductive trace terminations of printed circuit boards or co-fired ceramic circuitry where it provides low and stable contact resistance. LOCTITE ABLESTIK CE3850 can be fast cured at 150°C. It is ideal for application by needle dispense.

TYPICAL PROPERTIES OF UNCURED MATERIAL

| | |
|--|--------|
| Thixotropic Index | 4 |
| Viscosity @ 15 s ⁻¹ , AR 1000 Rheometer, mPa·s (cP) | 20,000 |
| Pot Life @ 18 to 25°C, days | 2 |
| Shelf Life @ -40°C, months | 9 |
| Flash Point, % | >100 |

TYPICAL CURING PERFORMANCE Cure Schedule

5 minutes @ 150°C

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

Physical Properties :

| | |
|---------------------------------------|---|
| Coefficient of Thermal Expansion : | |
| Below Tg, ppm/°C | 45 |
| Above Tg, ppm/°C | 120 |
| Glass Transition Temperature (Tg), °C | 122 |
| Young's modulus (E) : | |
| @ 25 °C | N/mm ² 11,000 (psi) (1.60×10 ⁶) |
| @ 150 °C | N/mm ² 500 (psi) (72,500) |
| Extractable Ionic Content, ppm: | |
| Chloride (Cl-) | 10 |
| Sodium (Na+) | 10 |
| Weight Loss, % | 2 |

Electrical Properties:

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|-----------------------------------|--------|
| Volume Resistivity @ 25°C, ohm-cm | 0.0005 |
|-----------------------------------|--------|

TYPICAL PERFORMANCE OF CURED MATERIAL

| | |
|--------------------|---------------------------------------|
| Die Shear Strength | N/mm ² 50 (psi) (7,250) |
|--------------------|---------------------------------------|

GENERAL INFORMATION

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

STORAGE:

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : -40 °C

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.

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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