

LOCTITE ABLESTIK 8175H

October 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 8175H provides the following product characteristics:

| | |
|-------------------------|--|
| Technology | Epoxy |
| Appearance | Silver |
| Cure | Heat cure |
| Product Benefits | <ul style="list-style-type: none"> • Electrically conductive • Thermally conductive • Pb-free alternative to solder • Stress absorbing • Stencil printing |
| Application | Die attach |
| Filler Type | Silver |

LOCTITE ABLESTIK 8175H is designed for solder replacement in microelectronic interconnect applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

| | |
|--|--------|
| Viscosity, Brookfield, 25 °C, mPa·s (cP) | 68,000 |
| Thixotropic Index | 2.0 |
| Specific Gravity | 4.0 |
| Work Life @ 25°C, days | 14 |
| Shelf Life @ -40°C, days | 365 |
| Flash Point - See SDS | |

TYPICAL CURING PERFORMANCE

Cure Schedule

30 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 :

| | |
|--------------------------------------|-----|
| Extractable Ionic Content, ppm: | |
| Chloride (Cl ⁻) | 30 |
| Sodium (Na ⁺) | 5 |
| Potassium (K ⁺) | 0 |
| Weight Loss on Cure, % | 2.8 |
| Water Extract Conductivity, μmhos/cm | 18 |
| pH | 4.7 |

Electrical Properties:

| | |
|-----------------------------|--------|
| Volume Resistivity, ohms-cm | 0.0005 |
|-----------------------------|--------|

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength (80 mil² IC):

| | | |
|-----------------|-------------------|---------|
| Si to Ag @ 25°C | N/mm ² | 37.9 |
| | (psi) | (5,500) |

Radius of Curvature (250 mil² IC):

| | |
|----------------------------------|-----|
| Si on Ag plated Cu leadframe, mm | 650 |
|----------------------------------|-----|

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
3. DO NOT open the container before contents reach 22°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.
4. DO NOT re-freeze. Once thawed to 22°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Apply adhesive as required.
2. This material can be applied by stencil printing.
3. The ideal deposition thickness is 0.003 to 0.005 inch.
4. Cure at one of the recommended cure schedules.

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.

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

(°C x 1.8) + 32 = °F
 kV/mm x 25.4 = V/mil
 mm / 25.4 = inches
 N x 0.225 = lb
 N/mm x 5.71 = lb/in
 N/mm² x 145 = psi
 MPa = N/mm²
 MPa x 145 = psi
 N·m x 8.851 = lb·in
 N·m x 0.738 = lb·ft

N·mm x 0.142 = oz·in
mPa·s = 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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Reference 0.0