

LOCTITE D 125 F

September 2014

PRODUCT DESCRIPTION

LOCTITE D 125 F provides the following product characteristics:

| | |
|--------------------------------------|---|
| Technology | Epoxy |
| Appearance | Yellow |
| Components | One-component |
| Product Benefits | <ul style="list-style-type: none"> • Low exotherm • Low water absorption • No stringing • High hot strength • High speed dispensing • Low cure temperature • Non-sag |
| Cure | Heat Cure |
| Application | Surface mount adhesive |
| Operating Temperature | -40 to 105 °C |
| Typical Assembly Applications | Chip capacitors, Chip resistors, SOTs, SOICs and PLCCs |

LOCTITE D 125 F surface mount adhesive is designed for high speed dispensing.

TYPICAL PROPERTIES OF UNCURED MATERIAL

| | |
|--|-----------|
| Viscosity, Brookfield , 25 °C, mPa·s (cP): | |
| Speed 1 rpm, #TD | 1,750,000 |
| Speed 10 rpm, #TD | 350,000 |
| Calculated Yield (Bingham), mPa·s (cP) | 350,000 |
| Specific Gravity | 1.275 |
| Hegman Fineness, μm | <50 |
| Shelf Life: | |
| @ 0 to 8°C, days | 183 |
| @ 18 to 25°C, days | 61 |
| Flash Point - See SDS | |

TYPICAL CURING PERFORMANCE

IR or Convection Conveyor Oven

- 20 minutes @ 100°C or
- 7 minutes @ 110°C or
- 2.5 minutes @ 120°C or
- 1.5 minutes @ 150°C

Convection Box Oven

- 30 minutes @ 100°C or
- 20 minutes @ 110°C or
- 10 minutes @ 120°C or
- 5 minutes @ 150°C

Note: A ramp up temperature of not more than 1°C per second should be used.

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 ASTM D 3386: Below Tg, ppm/°C | 58 |
| Glass Transition Temperature, ISO 11357-2, °C | 85 |
| Coefficient of Thermal Conductivity, W/(m-K) | 0.3 |
| Shore Hardness, ISO 868, Durometer D | >80 |
| Linear Shrinkage, % | 0.5 |
| Degree of Conversion by DSC , %: 3 minutes @ 125°C | >90 |

Electrical Properties:

| | |
|---|--------------------|
| Dielectric Constant , IEC 60250 @ 1 MHz | 3.5 |
| Volume Resistivity, IEC 60093, Ω·cm | 1×10 ¹⁴ |

TYPICAL PERFORMANCE OF CURED MATERIAL

| | |
|--------------------------------|--|
| Lap Shear Strength , ISO 4587: | |
| Aluminum @ 25 °C | N/mm ² >8 (psi) (>1,160) |

GENERAL INFORMATION

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

THAWING:

1. Allow material to reach room temperature before use.

DIRECTIONS FOR USE

1. LOCTITE D 125 F can be applied by dispensing, pin transfer, screen or stencil printing.
2. Equipment set-up and related product information is available from your Henkel Corporation support group.

Storage

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

Optimal Storage : 0 to 8 °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

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

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

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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Reference 0.3