

LOCTITE ECCOBOND D 125 F DR

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PRODUCT DESCRIPTION

LOCTITE ECCOBOND D 125 F DR provides the following product characteristics:

Technology	Epoxy
Appearance	Dark red
Components	One-component
Product Benefits	• Low exotherm • Low water absorption • High hot strength • No foaming • No corrosion • High speed dispensing without stringing • No loss of components during wave soldering • High yield • No sag during cure
Cure	Heat Cure
Application	Component assembly, NCA
Operating Temperature	120 °C
Typical Assembly Applications	Chip capacitors, Chip resistors, SOTs, SOICs and PLCCs

LOCTITE ECCOBOND D 125 F DR surface mount adhesive is designed for use in high-speed pneumatic and positive displacement dispensers. This one component adhesive is formulated to prevent component movement during board handling and cure. LOCTITE ECCOBOND D 125 F DR is the red colored version of LOCTITE ECCOBOND D125F.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Plastic Viscosity (Bingham), mPa·s (cP)	37,000
Calculated Yield (Bingham), N/m ²	350
Density ASTM D792, g/cm ³	1.275
Fineness, µm	<50
Shelf Life, days:	
@ 0 to 8°C	183
@ 18 to 25°C	60
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

Convection Box Oven

30 minutes @ 100°C or
20 minutes @ 110°C or
10 minutes @ 120°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

Hardness, Shore D	>80
Glass Transition Temperature, °C	85
Coefficient of Thermal Expansion, 10 ⁻⁶ K ⁻¹	55 to 60
Degree of Conversion after 3 minutes @ 125°C, %	>90
Linear Shrinkage on Cure, %	0.5
Thermal Conductivity, W/(m·K)	0.3

Electrical Properties

Dielectric Constant	3.5
Volume Resistivity, ohm-cm	>1×10 ¹⁴
Electromigration (Bellcore)	Pass

TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Lap Shear Strength	N/mm ²	>7
	(psi)	(>1,020)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. LOCTITE ECCOBOND D 125 F DR is best suited for dispensing, pin transfer or stencil printing application method.
2. Equipment set-up and related product information is available from your Henkel Corporation support group.
3. NOTE: Heat up to 40°C to decrystallise product (maximum 3 hours, depending on packaging).

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.

Conversions

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

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