

# ECCOBOND™ D 125 F 3

## Surface Mount Adhesive

### For High Speed Dispensing Applications

Key Feature	Benefit
Low exotherm	No foaming
Low water absorption	No corrosion
High hot strength	No loss of components during wave soldering
High green strength	No movement of components

#### Product Description :

ECCOBOND D 125 F 3 is a one component, low temperature curing surface mount adhesive which applies easily without stringing. It will not sag during cure. The uncured product has no moisture absorption and corrosion after cure is not observed. This single component adhesive cures in 2,5 minutes at 120°C in IR and prevents component movement during board handling or cure.

#### Properties Of Material As Supplied :

Property	Test Method	Unit	Typical Value
Chemical Type			Epoxy
Appearance	TP-76W		Yellow
Fineness	TP-19W	µm	< 50
Density	TP-13W	g/cm <sup>3</sup>	1,33 - 1,38
Plastic Viscosity (Casson)	TP-534W	Pa.s	45 – 75
Calculated Yield (Casson)	TP-534W	N/m <sup>2</sup>	210 – 310

#### Cure Schedule :

ECCOBOND D 125 F 3 can be cured by Infra Red or by convection oven. Cure times will depend on cure temperatures.

Temperature (°C)	Cure Time	
	IR or Convection Conveyor Oven (min)	Convection Box Oven (min)
100	20	30
110	7	20
120	2,5	10

#### Applications :

ECCOBOND D 125 F 3 is designed specifically for use on high speed pneumatic and positive displacement dispensers. ECCOBOND D 125 F 3 is an excellent adhesive for bonding a complete range of components including chip capacitors and resistors, SOT's, SOIC's and PLCC's.

#### Instructions For Use :

ECCOBOND D 125 F 3 is applied by dispensing, pin transfer, screen or stencil printing. Equipment set-up parameters and related product information are available worldwide from your Emerson & Cuming technical support group.

**Properties Of Material After Application :**

Property	Test Method	Unit	Typical Value
Conversion After 3 min	TP-524W at 125°C	%	> 90
Linear Cure Shrinkage	TP-547W	%	0,5
Hardness	TP-49W	Shore D	> 80
Tensile Lap Shear Strength	TP-21W	MPa	> 8
Coefficient of Thermal Expansion	TP-525W	10 <sup>-6</sup> K <sup>-1</sup>	70 – 80
Glass Transition Temperature	TP-526W	°C	70 – 75
Thermal Conductivity		W/m.K	0,3
Dielectric Constant	TP-545W		3,5
Volume Resistivity	TP-544W	Ohm.cm	> 10 <sup>14</sup>
Electromigration	Bellcore		Passed
Service Temperature		°C	120

**Storage And Handling :**

Store in a cool dry area. Useful shelf life may vary depending on method of application. ECCOBOND D 125 F 3 stored at low temperatures must be allowed to return to room temperature before use. This normally takes 8 - 12 hours.

For board and equipment cleaning we advise the use of our CLEANER 50306. Alcohol is not recommended !

Storage Temperature (°C)	Usable Shelf Life (months)
0 to 8	6
18 to 25	2

**Health & Safety :**

It is recommended to consult the Emerson & Cuming product literature, including material safety data sheets, prior to using Emerson & Cuming products. These may be obtained from your local sales office.

**Note :**

Please note that Technical Data Sheets may be updated from time to time. Customers are advised that the latest technical bulletins are always available upon request.

**Attention Specification Writers :**

The technical information contained herein is generally consistent with the properties of the material and should not be used in the preparation of specifications, as it is intended for reference only. This technical information has been derived from one batch of material and may not exactly match the properties of each individual delivered batch. For assistance in preparing specifications, please contact your local Emerson & Cuming office for details. Please contact Emerson & Cuming Quality Assurance for test method details.

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