Technical Data Sheet

LOCTITE ECCOBOND EN 3838T

September 2015

PRODUCT DESCRIPTION

LOCTITE ECCOBOND EN 3838T provides the following product characteristics:

Technology	Epoxy
Appearance	Black liquid
Product Benefits	• One component • Thixotropic • Fast cure at moderate temperatures • Low Tg • Low modulus • Reworkable • Pb-free applications
Cure	Heat cure
Application	Encapsulant
Typical Package Application	CSP and BGA

LOCTITE ECCOBOND EN 3838T is designed to provide an flexible, low Tg material for encapsulating components on a PCB. When cured, this material provides physical protection and stable electronic performance and protection in temperature/humidity/bias testing.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 20 rpm	6,700
Thixotropic Index (2/20 rpm)	5.8
Specific Gravity	1.2
Pot Life @ 25ºC, days	3
Shelf Life @ -20°C, days	270
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

8 minutes @ 130°C

The above cure profile is a guideline recommendation. 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		27
Coefficient of Thermal Expansion , TMA, ppm/°C:		
Below Tg		57
Above Tg		217
Glass Transition Temperature, (Tg) by TMA, °C		2
Storage Modulus, DMA @ 25 °C	N/mm² (psi)	466 (67,590)
Thermal Conductivity , W/(m-K)		0.22

GENERAL INFORMATION

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

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.

THAWING:

1. Allow container to reach room temperature before use.

Storage

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

Optimal Storage: -20°C. Storage below -40°C or above -15°C can adversely affect product properties.

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
psi x 145 = N/mm²
MPa = N/mm²
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:

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