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LOCTITE

Technical Data Sheet

LOCTITE ECCOBOND EO1080

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PRODUCT DESCRIPTION

LOCTITE ECCOBOND EO1080 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Product Benefits	• Excellent shelf stability • Fast curing capability at moderate temperature • Excellent handling properties
Components	One-component
Cure	Heat cure
Application	Encapsulation
Typical Applications	IC's, transistors and similar semiconductors

LOCTITE ECCOBOND EO1080 epoxy encapsulant is designed for use as a casting compound in applications requiring excellent handling properties. The cured material survives severe thermal shock and offers continuous service to 177 °C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):	
Spindle 7,, speed 4 rpm	60,000
Specific Gravity @ 25 °C	1.56
Gel Time @ 121ºC, minutes	3.1
Shelf Life @ 4°C, months	12
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE Recommended Cure Schedule

20 minutes @ 150°C

Alternative Cure Schedule

90 minutes @ 140°C or
2 hours @ 110°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 :

Coefficient of Thermal Expansion , ppm/°C:		
Below Tg		35
Above Tg		125
Glass Transition Temperature (Tg), °C		121
Shore Hardness, ISO 868, Durometer D		86
Flexural Modulus , ASTM D790	N/mm² (psi)	9,200 (1,288,000)
Flexural strength , ASTM D790	N/mm² (psi)	135 (18,900)
Water Absorption, ISO 62, %:		
24 hours immersion @ 25°C		0.05
24 hours immersion @ 50°C		0.16

GENERAL INFORMATION

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

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

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.

Directions for use

1. LOCTITE ECCOBOND EO1080 should not be used for casting masses larger than 50 grams.
2. Mix thoroughly each time it is used.
3. Heating to 32 to 43°C will lower viscosity and aid in mixing and pouring.

STORAGE:

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

Optimal Storage : 4 °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
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

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Note:
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