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LOCTITE

Technical Data Sheet

LOCTITE 3707

September 2012

PRODUCT DESCRIPTION

LOCTITE 3707 provides the following product characteristics:

Technology	Epoxy
Appearance	Opaque white
Components	One-component
Product Benefits	• UV curable
Cure	Ultraviolet (UV) light & heat cure
Application	CSP/BGA Cornerbond
Typical Applications	UV Curable CSP/BGA Cornerbond

LOCTITE 3707 UV curable edgebond is designed for bonding various types of electronic components on a PCB.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP52, 25 °C, mPa·s (cP):	
Speed 20 rpm	9,595
Pot Life @ 25ºC, days	<7
Shelf Life - Refer to package label	
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended UV Cure

>3,000mJ or
>30 seconds @ 100 mW/cm²
Cure Depth, mm:
MPHL (UVALoc1000) at 100 mW/cm² , for 30 seconds ≥10

Oven Cure

2 minute @ 130°C

Minimum intensity of 100 mW/cm² is recommended for the UV lamp. Use suggested cure schedules as general guidelines; other cure schedules may yield satisfactory results.

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

Specimen was prepared by thermal cure only

Physical Properties

Coefficient of Thermal Expansion , ppm/°C:	
Below Tg	52
Above Tg	151
Glass Transition Temperature (Tg) by TMA, °C	53
Storage Modulus, GPa	4.4

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.

Removal Procedure

1. Heat the cornerbond to approximately 240ºC using a hot air nozzle on standard BGA rework equipment.
2. Component can be twisted and removed.
3. Clean and remove residue using a tacky flux or liquid flux and a solder removal vacuum tool.

STORAGE:

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

Optimal Storage: 2 to 8°C. Storage below 2°C or greater than 8°C can adversely affect product properties.
Must be away from any light source.

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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Disclaimer

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Reference 1