Technical Data Sheet

LOCTITE ECCOBOND 50300HT

August 2014

PRODUCT DESCRIPTION

LOCTITE ECCOBOND 50300HT provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Product Benefits	• One component • Low viscosity • Low CTE
Filler content by weight, %	68
Percent Solids by Weight	100
Cure	Heat Cure
Application	Encapsulant - glob top

LOCTITE ECCOBOND 50300HT glob top is designed for encapsulating wire bonded bare die on epoxy laminate and similar substates. The formulation of this single component material ensures a long pot and a very stable viscosity during use. It is recommended for use on ICs with high wire profiles and in applications where the spreading of the glob top during cure must be controlled.

.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield Sp #6, 25 °C, mPa·s (cP):	
Speed 2.5 rpm	130,000
Speed 10 rpm	65,000
Density , g/cm³	1.73
Pot life , :	
@ 18 to 25ºC, days	7
@ 40ºC, days	5
Shelf Life @ -40 to 0°C (from date of manufacture), months	4
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

2 hours @ 150°C

Low Stress Cure Schedule

1 hour @ 120°C + 1 hour @ 150°C

For best results, substrate should be preheated (up to a maximum of 70ºC) to obtain the optimum flow under and around the wires.

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	95
Coefficient of Linear Thermal Expansion, 10^{-6} K^{-1}	20
Glass Transition Temperature, °C	140
Shrinkage on Cure:	
On Cure, %	0.5
With Pre-cure of1hour @ 120°C, %	0.2
Thermal Conductivity, W/(m-K)	0.63
Extractable Ionic Content, ppm:	
Chloride (Cl-)	10
Sodium (Na+)	10
Potassium (K+)	10
Ammonium (NH4+)	10
Water Absorption, by weight, %	0.4
Electrical Properties:	
Dielectric Constant / Dissipation Factor @ 25ºC:	
1kHz	3.2 / 0.009
Volume Resistivity, Ω·cm	3.3×10^{14}

GENERAL INFORMATION

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

THAWING:

1. This adhesive is packed and shipped in dry ice.
2. Transfer the syringes from the shipping container to a <0 °C freezer without ANY delays.
3. Allow material to reach room temperature before use.

DIRECTIONS FOR USE

1. LOCTITE ECCOBOND 50300HT can be used on both manual and automatic dispensing equipment.
2. The surfaces on which the adhesive has to be applied should be clean, dry and free from all dust.
3. Packages removed from storage must be allowed to return to ambient temperature before use. This normally takes 2hours for a 40gram syringeand8 to 12hours for a 500gramcartridge.
4. LOCTITE ECCOBOND 50300HT is manufactured to a very narrow specifications and is specially processed to avoid the inclusion of air in the material.

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

Optimal Storage : -40 to 0 °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.

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.

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
N/mm² x 145 = psi
MPa = N/mm²
MPa x 145 = psi
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:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:
In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada, Inc.the following disclaimer is applicable:
The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage
Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 0.1

This document was created and digitally signed by tdx.henkel.com at 2025-11-28T10:18:53.305Z