Technical Data Sheet

LOCTITE ECCOBOND DS 3318BL

October 2018

PRODUCT DESCRIPTION

LOCTITE ECCOBOND DS 3318BL provides the following product characteristics:

Technology	Acrylic
Appearance	Blue liquid
Product Benefits	• Fast cure • Low energy cure • Good moisture resistance
Solids Content, %	100
Cure	UV LED
Application	Encapsulation and Glob top
Typical Package Application(s)	LCD module assembly

LOCTITE ECCOBOND DS 3318BL fast, UV curable material is specially formulated for use in applications requiring lower energy cure. It is designed for protection of COF (Chip-on-Film) in LCD modules.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25ºC, TA Rheometer, mPa·s (cP):	
@ 15 s^{-1}	2,600
Shelf Life @ 25°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Sample 400um film cured under 365nm LED, 500 mW/cm² , 1500 mJ/cm²

Recommended UV Cure

Light Source and Condition:	
UV LED	
Wavelength, nm	365
Light Intensity, mW/cm²	≥500
UV Dosage, mJ/cm²	≥500

Depth of Cure

Depth of Cure, mm	2.3

Sample tested using Dymax 5000-EC UV curing lamp, 100 mW/cm² , 15 seconds.

LOCTITE ECCOBOND DS 3318BL can be cured by irradiation with ultraviolet and visible light as well as LED-UV light with single wavelength distribution of sufficient intensity. Cure rate and depth of cure depend on the intensity, spectral distribution of the light source, exposure time and light transmittance of the substrate through which the light must pass.

TYPICAL PROPERTIES OF CURED MATERIAL

Sample 400um film cured under 365nm LED, 500 mW/cm² , 1500 mJ/cm²

Physical Properties

Glass Transition Temperature, (Tg) by DMA, °C		58.07
Water Permeability, g.mil/100 in² .day:		
24 hrs @ 19.5ºC/100% RH		19.5
Extractable Ionic Content @ 100ºC, @ 24 hours, ppm:		
Chloride (Cl-)		3
Sodium (Na+)		1
Modulus @ 25°C	N/mm²	195.8
	(psi)	(28,400)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. This product is light sensitive; exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
2. The product should be dispensed from application with black feedlines.
3. For best performance bond surfaces should be clean and free from grease.
4. Cure rate is dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmission of the substrate through which the radiation must pass.
5. Cooling should be provided for temperature sensitive substrates such as thermoplastics.
6. Crystalline and semi-crystalline thermoplastics should be checked for risk of stress cracking when exposed to liquid adhesive.
7. Excess uncured adhesive can be wiped away with organic solvent (e.g. Acetone).
8. Bonds should be allowed to cool before subjecting to any service loads.

Storage

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

Optimal Storage: 18 to 25°C. Storage below -18°C or greater than 25°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 Henkel Representative.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb/F
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

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, or Henkel Canada Corporation, 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.

Reference 0.2