

LOCTITE ECCOBOND DP 1012UV

April 2017

PRODUCT DESCRIPTION

LOCTITE ECCOBOND DP 1012UV provides the following product characteristics:

Technology	Methacrylate
Appearance	Opaque white
Product Benefits	<ul style="list-style-type: none"> • UV curable • Low CTE • High profile bead to surround leads • Provides environmental and mechanical protection
Cure	Ultraviolet (UV) light with optional heat cure
Application	Lead encapsulant, Damming
Key Substrates	Polyimide film, Aluminum, Noble metals and Silicon die

LOCTITE ECCOBOND DP 1012UV one component material is designed for use as a wire and tab bond lead encapsulant or damming material. This adhesive cures in seconds when exposed to the appropriate intensity of UV light.

LOCTITE ECCOBOND DP 1012UV can be co-cured with low viscosity ECCOBOND DP 1003UV fill encapsulant. LOCTITE ECCOBOND DP 1012UV maintains adhesion to silicon, wide variety of metals and plastics when thermal cycled. It may be applied by jet dispense and air over syringe dispensing.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Rheometer@ 5 s ⁻¹ , mPa·s (cP)	25,000
Viscosity, Rheometer, after shear, @ 5 s ⁻¹ , mPa·s (cP)	210,000
Shear Thinning Index	≥3.5
Particle Size, Maximum, Hegman Gauge, μm	<10
Shelf Life @ -20°C (from date of manufacture), days	122
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended UV Cure Condition

Light Source and Condition:	
Mercury or Doped UV Lamp	
Light Intensity, UVA, minimum, J/cm ² :	
Minimum	8
Best performance	>12

Secondary Cure

60 minutes @ 100°C in Conventional oven

Photo DSC

Time to Peak Cure, seconds	15
----------------------------	----

Depth of Cure

LOCTITE ECCOBOND DP 1012UV can be cured with a variety of UV lamp sources and bulb spectrums. Cure time will vary with the distance from the UV lamp, the lamp's reflector, intensity and thickness of the adhesive to be cured.

The adhesive's surface cure can be enhanced by inert gas blanketing during UV cure.

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	50
Coefficient of Thermal Expansion , TMA:	
Alpha 1, ppm/°C	<60
Alpha 2, ppm/°C	>230
Glass Transition Temperature, Tan Δ Max, °C	>70
Storage Modulus, DMA:	
@ 25°C	N/mm ² 2,500 (psi) (362,590)

GENERAL INFORMATION

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

THAWING:

1. Frozen packages must be completely thawed before use.
2. Store tip down and warm at room temperature until no longer cool to the touch (normally 45 to 90 minutes).
3. DO NOT thaw in an oven.

DIRECTIONS FOR USE

1. LOCTITE ECCOBOND DP 1012UV adhesive is designed for use with jet dispense, pneumatic or positive displacement dispensers.
2. Avoid exposure to sunlight, fluorescent lights, UV cure lamp and other UV light sources.

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 -20°C or above -10 °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

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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

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 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.

Trademark usage: [Except as otherwise noted] All trademarks in this document are trademarks and/or registered trademarks of Henkel and its affiliates in the U.S. and elsewhere.

Reference 0.1

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Loctite:](#)

[1727591](#)