

LOCTITE 3217

August 2023

PRODUCT DESCRIPTION

LOCTITE 3217 provides the following product characteristics:

Technology	Epoxy/Acrylate
Appearance	Amber
Product Benefits	Dual cure
Cure	Ultraviolet (UV) light, Heat cure
Application	Assembly
Typical Assembly Applications	Image sensor module assemblies

LOCTITE 3217 dual cure adhesive is designed for use in the assembly of temperature sensitive electronic components. The maximum performance of this material is achieved by exposure to UV light of sufficient intensity, followed by thermal cure.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, HAAKE PK-100, Cone PK 1 2°, @ 25 °C, mPa·s (cP):

@ Shear rate of 2 s ⁻¹	109,000
@ Shear rate of 20 s ⁻¹	37,600
Yield Point @ 25 °C, mPa·s (cP)	116,900
Thixotropic Index (2/20 s ⁻¹)	2.9
Specific Gravity	1.2
Pot life @ 25°C, days	>14
Storage Life @ 2 to 8°C, days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended UV Cure

Light Source and Condition:	
Medium pressure mercury lamp	
UV Wavelength, nm	365
Light Intensity, mW/cm ²	100
UV Tack-Free Time, seconds	1

Recommended Heat Cure

30 minutes @ 60°C
25 minutes @ 70°C
20 minutes @ 80°C

The above cure profile is a guideline recommendation. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of light source, exposure time and the light transmittance of the substrate.

With all fast cure systems, the minimum required time for cure depends on the rate of heating. Cure rate depends on the mass of the material to be heated and intimate contact with the heat source. Use suggested cure conditions as general guidelines. Other cure conditions may yield satisfactory results.

TYPICAL PROPERTIES OF CURED MATERIAL

Sample cured 5 secs @ 100 mW/cm² plus 30 min @ 80°C

Physical Properties :

Hardness, Shore D, ASTM D2240	86
Glass Transition Temperature (Tg) by TMA, °C	82
Coefficient of Thermal Expansion :	
Alpha 1, ppm/°C	53
Alpha 2, ppm/°C	178
Volume Shrinkage on Cure, %	5.6
Linear Shrinkage on Cure, %	1.1

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.

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

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/mm ²
MPa = N/mm ²
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 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 0.2