

LOCTITE® 3536

July 2026

PRODUCT DESCRIPTION

LOCTITE® 3536 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Components	One component
Product benefits	• Reworkable • Cures rapidly at low temperatures • Minimizes thermal stress • Rapid device throughput • Excellent protection for solder joints against mechanical stress
Cure	Heat cure
Application	Underfill
Typical assembly applications	Chip scale packages and BGA

LOCTITE® 3536 epoxy reworkable underfill is designed to provide protection for solder joints against mechanical stress such as shock, drop and vibration.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield – HBT, CP51, 25 °C, mPa·s (cP):

Speed 50 rpm	1,800
Pot life @ 25°C, days	>14
Shelf life* @ 2 to 8°C, days	270 - 365
Flash point - see SDS	

**Shelf life is dependent on package size. Please contact your local Henkel Representative for specific information.*

TYPICAL CURING PERFORMANCE

Recommended cure schedule

5 minutes @ 120°C
2 minutes @ 130°C

Curing above 140°C is not recommended.

The above cure profiles are guideline recommendations. These conditions (time and temperature) may vary based on customers' experience and specific application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 60 minutes @ 120°C

Physical properties

Coefficient of thermal expansion, ppm/°C:

Below Tg	63
Above Tg	178

Glass transition temperature (Tg) by TMA, °C 53

Storage modulus N/mm² (psi) 3,500 (508,000)

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

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 the specifications of this product.

Directions for use

1. For best results, substrate should be preheated (up to 70°C) to allow fast capillary flow.

Removal procedure

1. Heat the underfill approximately 240°C 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 an 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.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel 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

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

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