

# LOCTITE®

- Fast Flow
- Long Potlife
- Reworkable
- Anhydride Free



## Loctite® 3549™

*Reworkable CSP Underfill*



Loctite® 3549™ is a fast flow, low temperature cure, reworkable epoxy underfill for BGA and CSP devices. It exhibits high adhesion to flexible and rigid circuit substrates. Loctite® 3549™, when fully cured, provides excellent protection for the solder joints against induced stresses, increasing both drop test and temperature cycle performance of the device.

# KRAYDEN, INC.

AUTHORIZED DISTRIBUTOR  
1-800-448-0406



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Reworkable CSP Underfill

### General Information

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

### Underfill Rework Procedure

After removing IC package, the basic removal procedure for Loctite® 3549™ involves heating the underfill to approximately 240°C using a hot air nozzle on standard BGA rework equipment. The component is then twisted and removed. Residue removal is accomplished using a tacky flux together with a vacuum nozzle attachment. See the "Technical Resource" section of [www.loctite.com](http://www.loctite.com) for detailed rework guidelines.

### Handling and Storage

- 14 day pot life at 25°C (77°F) (ITM10T), (time to double in viscosity)
- 6 month shelf life at 2-8C

Product shall be ideally stored in a refrigerated, dry location in unopened containers at a temperature between 2-8C (36°F to 46°F).

### Substrate Preheat

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

### Key Features

- Low temp snap cure (5 minutes at 120°C)
- Fast flow
- Long potlife
- Reworkable
- Refrigerated Storage (2°C to 8°C)
- Anhydride Free
- Clear SADT

### Benefits and Advantages

- Pb-free solder compatible
- Improve production throughput
- Improve production yield and lower production cost
- PCB recovery
- Easy storage
- Environmentally friendly

[electronics.henkel.com](http://electronics.henkel.com)

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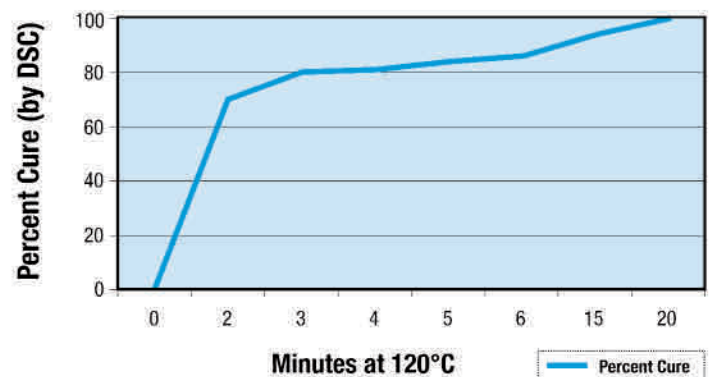
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### PHYSICAL PROPERTIES

Product	Loctite® 3549™
Color	Black
Viscosity at 25°C, mPa s	2200
Batch Cure Temperature / Time	120°C / 20 minutes
Reflow Cure Temperature / Time	150°C / 1 minute
% Filler	18
Pot Life at 25°C, Days	14 days
Tg (°C), by TMA	26
CTE1, ppm / °C	67
CTE2, ppm / °C	170
Modulus (Gpa) by DMA at 25°C	3.5
Shelf Life at 2-8C, Month	6

### CURE KENITICS



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