

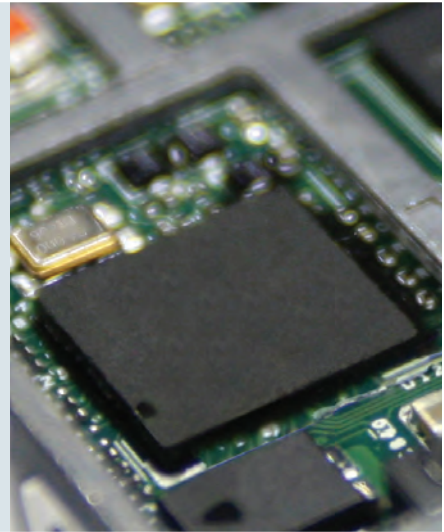
Hysol®

**UF3800™
CSP/BGA UNDERFILL**



HYSOL® UF3800™ CSP/BGA UNDERFILL

In a remarkable *breakthrough for underfill materials development*, Henkel has engineered and launched a new underfill system that delivers on an unprecedented array of complex and demanding requirements, including *room temperature fast flow, low temperature cure and reworkability*. The new material, *Hysol® UF3800™*, has been specifically designed for use with today's *CSP and BGA devices* and is particularly well-suited for handheld communication and entertainment applications.



Across the Board,
Around the Globe.
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Hysol® UF3800™ has a unique hybrid system of epoxy and acrylate to achieve low viscosity, high reliability and good reworkability use for handheld devices.



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Typical Properties of Uncured Material	
Viscosity @ 25°C	375 MPa
Specific Gravity	1.13
Pot Life @ 25°C	3 Days
Shelf Life @ -20°C	6 Months

Typical Curing Performance	
Cure Schedule @ 130°C	≥8 Minutes
Note: This is a bondline / material temperature. The above cure profile is a guideline recommendation. 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	
Coefficient of Thermal Expansion ppm/°C:	
Below Glass Transition Temperature (Tg), ppm/°C	52
Above Tg, ppm/°C	188
Tg by TMA, °C	69
Storage Modulus, 25°C, GPa	3.08

Not for product specifications
The technical data contained herein is intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.



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Key Benefits

Environmentally and health responsible:

- High degree of compatibility with various halogen-free solder paste
- Does not contain any ingredients restricted by RoHS
- Reworkable: reduce waste by allowing re-use of PCB

Energy saving:

- Room temperature flow (no part pre-heating required)
- Low temperature fast cure

Reliability improvement:

- Excellent drop impact performance
- Excellent thermal cycle performance

Rework Procedure

1. Heat part to 240°C or greater using a hot air nozzle on standard BGA rework equipment.
2. The component can then be twisted and removed.
3. Residue can be removed by using a tacky or liquid flux with a soldering iron.

Storage

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

Optimal storage:

Storage below -25°C or greater than -15°C can adversely affect product properties.

