

LOCTITE ABLESTIK CDF 700

June 2018

PRODUCT DESCRIPTION

LOCTITE ABLESTIK CDF 700 provides the following product characteristics:

Technology	Hybrid chemistry
Appearance	Silver film
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> • Good MSL performance • Low in-package thermal and electrical resistance • High adhesion • No resin bleed-out • Controlled bondline and fillet shape • Consistent bondline control with minimal die tilt
Application	Die attach
Film Thickness	15 to 30 μm
Typical Package Application	QFN, SOIC

LOCTITE ABLESTIK CDF 700 highly filled, conductive die attach adhesive is designed to provide high thermal and electrical conductivity in the attachment of integrated circuits and components onto metallic leadframes. This material is specially formulated for thin wafer handling and high die/pad ratio applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Filler Content %	87
Work Life @ 25°C, days	60
Shelf Life @ 0 to 5°C, days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

30 minute ramp from 25°C to 200°C, hold 60 minutes @ 200°C

Alternate Cure Schedule

30 minute ramp from 25°C to 175°C, hold 60 minutes @ 175°C

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

Coefficient of Thermal Expansion, :	
Below T _g , ppm/°C	43
Above T _g , ppm/°C	168
Glass Transition Temperature, °C	33
Tensile Modulus @ 25°C	N/mm ² 6,900 (psi) (1,000,760)

Thermal Properties

Thermal Conductivity (Bulk), W/(m-K)	5.5
Thermal Resistance (R _{th}), in-package, thermal die on QFN, K/W	0.7

Electrical Properties

Volume Resistivity (Bulk), ohm-cm	0.0005
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TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Hot Die Shear Strength @ 260°C: 2 X 2 mm (80 x 80 mil) die on PPF LF, kg/mm ²	0.9
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GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Refrigerator storage is recommended.
2. Care must be exercised to avoid entrapment of contaminants.
3. Avoid overheating.
4. Alternate thicknesses may be used depending on the application requirements.
5. Recommended silicon wafer backside lamination temperature is 65°C or higher.
6. Please contact your Henkel Technical Service representative for details regarding ideal lamination temperatures for your specific wafer and dicing tape recommendation.

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 : 0 to 5 °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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{psi} \times 145 = \text{N/mm}^2$

$\text{MPa} = \text{N/mm}^2$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

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Reference 2