Technical Data Sheet

LOCTITE ABLESTIK CDF 300

(**including CDF 315P**)

December 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK CDF 300 provides the following product characteristics:

Technology	Hybrid chemistry
Appearance	Silver film
Cure	Heat cure
Product Benefits	• High MSL reliability • High adhesion • Good wettability • No resin bleed-out • Controlled fillet size • Consistent bondline control with minimal die tilt • Stable at high temperatures
Application	Die attach
Typical Package Application	QFN, SOIC

LOCTITE ABLESTIK CDF 300 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.

LOCTITE ABLESTIK CDF 300 is available in the following configurations:

Family Series	CDF 300 Series
Film Thickness	• 15µm • 30µm
Film Format	• P = Precut • K = Precut (K&S Wafer Frame) • R = Roll
cDAF Wafer Size	• 6" • 8" • 12"
Dicing Tape	• A = ERX-0045 • B = ERX-6140 • C = ERX-6107
Dicing Tape Size for Wafer Frame	• 8" • 12"

CDF Nomenclature Representation: **CDF 315P8A8**

CDF	Conductive Die Attach Film
3	Family Series
15	Film Thickness
P	Film Format
8	cDAF Wafer Size
A	Dicing Tape
8	Dicing Tape Size for Wafer Frame

TYPICAL PROPERTIES OF UNCURED MATERIAL

Filler Content, %	81
Work Life @ 25°C, days	90
Shelf Life @ 0 to 5ºC , days	365

TYPICAL CURING PERFORMANCE

Cure Schedule

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

Tensile Modulus, DMA:		
@ 25 °C	N/mm² (psi)	5,400 (783,203)
@ 100 °C	N/mm² (psi)	1,180 (171,144)
@ 150 °C	N/mm² (psi)	734 (106,457)
@ 250 °C	N/mm² (psi)	402 (58,305)

Electrical Properties

Volume Resistivity , ohms-cm	0.001
RDSon Testing:	
2 X 2.9 x 0.18 mm² Ti/Ni/Ag die back, TO-220 MOSFET Cu Pad, ohms	0.05

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Hot Die Shear Strength:	
2 X 2 mm (80 x 80 mil) die on PPF LF, kg/mm²	0.8

GENERAL INFORMATION

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

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 65ºC 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
(°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
N/mm² x 145 = psi
MPa = N/mm²
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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