

ECCOBOND CE3103WLV

May 2011

PRODUCT DESCRIPTION

ECCOBOND CE3103WLV provides the following product characteristics:

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Technology	Epoxy
Appearance	Silver
Cure	Heat cure
Product Benefits	Electrically conductive
	 Pb-free alternative to solder
	 Low cure temperature
Filler Type	Silver
Filler Weight, %	76
Application	Electrically Conductive Adhesive
Surfaces	Sn, Sn/Pb and OSP coated Cu
Typical Package Application	SMD component attach

ECCOBOND CE3103WLV is an electrically conductive epoxy adhesive that is a Pb-free alternative to solder.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity at 25°C, mPa·s (cP) (Plate 2 cm at 15 s ⁻¹)	15,000 to 25,000
Thixotropic Index	5.5
Pot Life @ 25°C, days	3
Shelf Life @ -40°C, months	12
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE Cure Schedule

10 minutes @ 120°C or 3 minutes @ 150°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, ppm/°C:	
Below Tg	45
Above Tg	225
Glass Transition Temperature (Tg) by TMA, °C	114
Modulus @ 25°C, GPa	4.5
Operating temperature, °C	150
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Electrical Properties:	
Volume Resistivity, ohms-cm	0.0008

TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Lap Shear Strength, MPa	13
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GENERAL INFORMATION

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

DIRECTIONS FOR USE

 The surfaces on which the adhesive has to be applied should be clean, dry and free from all dust

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: -40 to -35°C. Storage below -40°C can adversely affect product properties (freeze-thaw voids).

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

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

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Henkel Corporation and its affiliates ("Henkel") specifically disclaims all warranties implied. including expressed or warranties merchantability or fitness for a particular purpose, arising from sale or use of Henkel products. Henkel specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under



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Reference 0.5