

DA 90L Non-Conductive Adhesive Product Datasheet

Outstanding Thermal Cycling Performance

Excellent Mechanical Shock Performance

High Process Yield

Description

DA 90L is silica filled, highly thixotropic, solvent-free and fast curing thermosetting non conductive adhesives. DA 90L has excellent adhesion to the substrate and bare die. It can be used for small and large die attach. It can be applied using dispense or printing methods. It has demonstrated high reliability and high temperature reflow performance. It is designed for high production and friendly environments where process speed and mechanical shock are the key concern. This material is easily dispensed, minimizes induced stresses and provides outstanding reliability performance (e.g. temperature cycling performance) and excellent mechanical resistance. The performance of the drop test has been improved by two orders of magnitude compared with that with the use of solder paste.

Typical Physical Properties

Product Name	DA 90L Adhesives
PROPERTIES OF UNCURED MATERIAL	
Appearance	White
Specific Gravity (ASTM D 1475-60)	1.8 g/cc
Viscosity (Brookfield, 0.5 rpm)	10-50 kcp
PROPERTIES OF CURED MATERIAL	
Glass Transition Temperature (Tg) (ASTM D3418-82)	149 °C

C.T. E (ASTM E 831), PPM /°C	$\alpha 1 = 35; \alpha 2 = 142$
Lap Shear Strength (FR4/FR4)	2600 psi
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm
Surface insulation resistance (J-STD-004)	Pass

Recommended Curing Conditions

In-line curing or 30 – 90 minutes at 88 – 110°C

Note: the curing time does not include the time to allow the bond location to reach the desired cure temperature. Alternate cure profiles may be evaluated.

Storage & Shelf Life

6 months provided materials are kept in a sealed original container at –40 °C. Storage beyond this period can produce higher viscosity. Protect from moisture, evaporation and foreign materials. Process ability of these products can be adversely affected by evaporation and contamination.

Safety

DA 90L is a friendly, non-toxic material. However, general hygiene practice is recommended when handling this material. For detailed information, please consult the product SDS.

Package

DA 90L non-conductive adhesive series are available in 10cc and 30cc. Other packages are available depending upon customer's request. Contact YINCAE for order information.