

DA 90-50 Die Attach Adhesive Product Datasheet

High thermal conductivity
Excellent moisture resistance
High reliability

Description

DA 90-50 is a silver filled, high thermal conductive, solvent-free and fast curing thermosetting die attach adhesives. DA 90-50 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.

Typical Physical Properties

Product Name	DA 90-50 conductive adhesives
PROPERTIES OF UNCURED MATERIAL	
Filler	Silver
Specific Gravity (ASTM D 1475-60)	3.0-3.5 g/cc
Viscosity (Brookfield, 0.5 rpm)(@35°C))	45-60 kcp
PROPERTIES OF CURED MATERIAL	
Tensile Strength (MPa)	56
C.T. E (ASTM E 831), PPM /°C	35
Young's modulus (GPa)	2 – 3.5
Thermal conductivity (W/mK)	2 – 5
Volume resistivity (Ω.cm)	10 ⁻⁴

Die Shear Strength (Kg/mm2)	2x2mm Silicon die on Pd: 2.0 2X2mm Au silicon die on bare Cu: 2.5 2x2mm Au silicon die on Au: 2.3
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm

Recommended Curing Conditions

30-50 min cure at 170-190°C.

Note: the cure time not including 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 below –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 90-50 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 90-50 conductive adhesives are available in 10cc, and 30cc packages. Other packages are available depending upon customer's request. Contact YINCAE for order information.