

DA 120F Die Attach Adhesive Product Datasheet

High Thermal Conductivity
Excellent Moisture Resistance
High Reliability

Description

DA 120F is a silver filled, high thermal conductive, solvent-free and fast curing thermosetting die attach adhesives. DA 120F 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 120F conductive adhesives
PROPERTIES OF UNCURED MATERIAL	
Appearance	Silver
Specific Gravity (ASTM D 1475-60)	2.5 g/cc
Viscosity	10 – 50 kcp
PROPERTIES OF CURED MATERIAL	
Glass Transition Temperature (Tg) (ASTM D3418-82)	79 °C
Tensile Strength (MPa)	56
C.T. E (ASTM E 831), PPM /°C (ASTM E 831)	35

Thermal conductivity (W/mK)	0.5-1
Volume resistivity (Ω .cm)	0.00003 – 0.00008
Die Shear Strength (Kg/mm ²)	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

60-90 min cure at 120°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 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 120F 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 120F conductive adhesives are available in 10cc and 30cc packages. Other packages are available depending upon customer's request. Contact YINCAE for order information.