

UVA 88A UV Curable Adhesive Product Datasheet

Outstanding Reliability Performance

Excellent Low Temperature Cure Performance

High Process Yield

Description

UVA 88A series is a dual cure UV adhesive, which is designed for optical device bonding such as image sensors (CMOS and LCD) including glass lid bonding, lens attachment. UVA 88A1 is good for glass lid bonding onto ceramic or FR4 substrate. UVA 88A2 and UVA 88A3 are higher viscosity versions, which are good for lens attachment. UVA 88A1 is usually a one-step UV cure process without thermal post-cure process. UVA 88A2 and A3 can instantly cure using UV light, followed by thermal cure if necessary. UVA 88A series adhesives not only have excellent adhesion on glass but also have excellent adhesion on ceramic or FR4, etc. substrates. It is designed for high production and friendly environments where process speed and reliability is the key concern. This material is easily dispensed, minimizes induced stresses and provides outstanding reliability performance (e.g. temperature cycling performance), excellent moisture and solvent (FC-40) resistance. UVA 88A series are fully compatible with lead free soldering process.

Typical Physical Properties

Product Name	UVA 88A series adhesive
PROPERTIES OF UNCURED MATERIAL	
Appearance	Colorless
Specific Gravity (ASTM D 1475-60)	1.05 g/cc
Viscosity (Brookfield, 0.5 rpm)	6 – 50 kcp
PROPERTIES OF CURED MATERIAL	

Glass Transition Temperature (Tg) (ASTM D3418-82)	80 – 135 °C
C.T. E (ASTM E 831), PPM /°C	$\alpha_1 = 65$; $\alpha_2 = 182$
Lap Shear Strength (FR4/FR4)	2000 psi
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm
Surface insulation resistance (J-STD-004)	Pass

Recommended Curing Conditions

UVA 88A can complete the curing in a few seconds when exposed to one 365 watts per inch 365nm UV light (“H” lamp) with light intensity 1.5 – 5 W/cm². The “shadowed” areas of the assembled board not exposed to UV light can be cured by secondary thermal cure at the desired temperature.

The thermal cure schedule:

110 °C 30 min

120 °C 15 min.

150 °C 5 min

Storage & Shelf Life

6-9 months provided materials are kept in a sealed original container below 25 °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.



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Safety

UVA 88A is a friendly, non-toxic material. However, general hygiene practice is recommended when handling this material. For detailed information please consult our SDS.

Package

UVA 88A adhesives are available in 10cc and 30cc. Other packages are available depending upon customer's request. Contact YINCAE for order information.