

UVA 88E UV Curable Adhesive Product Datasheet

Outstanding Reliability Performance

Excellent Low Temperature Cure Performance

High Process Yield

Description

UVA 88E is a dual cure UV adhesive, which is designed for optical device encapsulants such as LED and area image sensors (CMOS) including glass lid bonding, lens attachment. UVA 88E1 is good for ceramic or FR4 substrates. UVA 88E2 and UVA 88E3 are higher viscosity versions, which are good for LED application. UVA 88E1 is usually a one-step UV cure process without thermal post-cure process. UVA 88E2, A3 can instantly cure using UV light, followed by thermal cure if necessary. UVA 88E 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 88E series are fully compatible with lead free soldering process.

Typical Physical Properties

Product Name	UVA 88E 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 88E 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.



YINCAE Advanced Materials, LLC
93 Broadway
Menands, NY 12204
T (518) 452-2880
F (518) 452-2779

Safety

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