

SMT 88U Super-Fast Cure Adhesive Product Datasheet

Outstanding Reliability Performance

Excellent Low Temperature Cure Performance

Easy Rework

Description

SMT 88U is an adhesive, which combines the advantages of a few seconds cure UV adhesives, and low cost ownership of capillary underfill. It can be underfilled at room temperature without preheating a substrate. After cure, there is void free in underfill. The cured SMT 88U can be easily reworked. SMT 88U not only can be used as an underfill for chip scale package, ball grid array devices, package on package and land grid array and some flip chip applications. It is also suitable for bare chip protection in a variety of advanced packages such as memory cards, chip carriers, hybrid circuits and multi-chip modules. 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	SMT 88U Adhesive
PROPERTIES OF UNCURED MATERIAL	
Appearance	Colorless
Specific Gravity (ASTM D 1475-60)	1.08 g/cc
Viscosity (ASTM D-1384)	300 – 500 cp
Capillary Flow Rate (STM 777)	Room temperature underfilling

PROPERTIES OF CURED MATERIAL	
Glass Transition Temperature (Tg) (ASTM D3418-82)	69 °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

2 minutes @ 88°C, 8s @ 120°C, 1s @ 150°C. Note: 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

3-6 months provided materials are kept in a sealed original container below -20°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

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



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Package

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