

UF 88UL Super-Fast Flow Underfill Product Datasheet

Outstanding Reliability Performance

Compatible with all No Clean fluxes

Easy Rework

Description

UF 88UL is a super-fast flow capillary underfill, which can flow into a 10 μ gap at room temperature without preheating a substrate. After cure, there is void free in underfill. The cured UF 88UL can be easily reworked. UF 88UL 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 application. 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	UF 88UL Adhesive
PROPERTIES OF UNCURED MATERIAL	
Appearance	Red
Specific Gravity (ASTM D 1475-60)	1.1 – 1.2 g/cc
Viscosity (ASTM D-1384)	100 – 200 cp
Capillary Flow Rate (STM 777)	Room temperature underfilling

PROPERTIES OF CURED MATERIAL	
Lap Shear Strength (FR4/FR4)	2000 psi
C.T. E (ASTM E 831), PPM /°C	$\alpha_1 = 55$; $\alpha_2 = 122$
Glass Transition Temperature (T _g)(ASTM D3418-82)	100 – 110°C
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm
Surface insulation resistance (J-STD-004)	Pass

Recommended Cure Process

>10 min @ 135°C;

Note: curing 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 -20°C. Storage beyond this period can produce higher viscosity. Protect from UV light, moisture, evaporation and foreign materials. Process ability of these products can be adversely affected by evaporation and contamination.

Safety

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



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Package

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