

UF 66L Optical Dual UV Underfill Product Datasheet

Non-Yellowing
High Throughput and Process Yield
High Reliability

Description

UF 66L is one part 100% solid, dual cure UV optical underfill, which has been designed for wafer-level lens or optical lens attachment. It can be cured by UV in a few seconds to achieve fast fixing purpose, then further cured by thermal cure to achieve high reliability. UF 66L not only provides bubble free optical coverage and has good moisture resistance, and high temperature resistance. It is fully compatible with lead-free soldering process and is non-yellowing after three lead-free reflow cycles. All data of thermal cycle and surface insulation resistance have indicated UF 66L meets MIL-I-46058C and IPC CC-830 standards. UF 66L is also in full compliance with the RoHS Directive.

Typical Physical Properties

Product Name	UF 66L optical lens adhesive
PROPERTIES OF UNCURED MATERIAL	
Appearance	Transparent colorless liquid
Solvent (%)	0
Specific Gravity (ASTM D 1475-60)	1.09 g/cc
Viscosity (ASTM D-1384)	1500 – 4500 cp
PROPERTIES OF CURED MATERIAL	
Durometer Hardness (ASTM D-224)	D90

Humidity Resistance (85C/95RH, 120 days) (IPC-CC-830)	Pass
Surface Insulation Resistance (IPC-J-STD-004)	Pass
C.T. E (ASTM E 831), PPM /°C	$\alpha 1 = 65$
Glass Transition Temperature (Tg)(ASTM D3418-82)	125 °C
Refractive Index	1.5-1.51
Adhesion (ASTM D2197)	Excellent
Moisture Absorption (ASTM D-570)	0.2%
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm

Recommended Cure Process

UF 66L can complete the curing using UV plus thermal cure or thermal cure.

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 66L is a friendly, non-toxic material. However, general hygiene practice is recommended when handling this material. For detail information please consult our SDS.

Package

UF 66L optical bonding adhesive is available in 55cc and 12oz. Other packages are available depending upon customer's request. Contact YINCAE for order information.