

OF 66C Optical bonding UV Adhesives Product Datasheet

Low Thermal Stress

High Throughput and Process Yield

High Reliability

Description

OF 66C is one part 100% solid, dual cure UV bonding adhesives, which has been designed for the assembly of optical, fiber optic and optoelectronic devices. 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. The low viscosity of OF 66C can enhance the assembly productivity. OF 66C not only provides bubble free optical coverage and has good moisture resistance, but also has low CTE, which can easily dissipate the thermal stress from the different CTE substrates. All data of thermal cycle and surface insulation resistance have indicated OF 66C meets MIL-I-46058C and IPC-CC-830 standards. OF 66C is also in full compliance with the RoSH Directive.

Typical Physical Properties

Product Name	OF 66C optical bonding adhesives
PROPERTIES OF UNCURED MATERIAL	
Appearance	Transparent colorless liquid
Specific Gravity (ASTM D 1475-60)	1.06 g/cc
Viscosity (ASTM D-1384)	10 – 20 kcp
Solvent (%)	0
PROPERTIES OF CURED MATERIAL	
Glass Transition Temperature (Tg) Via TMA (ASTM D3418-82)	108 °C

C.T. E (ASTM E 831), PPM /°C	$\alpha_1 = 65$
Humidity Resistance (85C/95RH, 120 days) (IPC-CC-830)	Pass
Durometer Hardness (ASTM D-224)	D75
Surface Insulation Resistance (IPC-J-STD-004)	Pass
Refractive Index	1.52 – 1.53
Adhesion (ASTM D2197)	Excellent
Moisture Absorption (ASTM D-570)	0.2%
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm
Thermal Performance	
Thermal Shock (-65/+125 °C) (IPC-CC-830)	100 cycles, Class 3
UV Yellowing Resistance, hrs (ASTM D904-99)	>500

Recommended Curing Conditions

OF 66C can complete the curing in a few seconds when exposed to one 365 watts per inch 365nm UV light (“H” lamp) with light intensity 2 – 5W/cm². The thermal cure can be completed within 45 – 60min @110 °C.

Storage & Shelf Life

6 months provided materials are kept in a sealed original container in the refrigerator or below 5 °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

OF 66C is a friendly, non-toxic material. However, general hygiene practice is recommended when handling this material. For detailed information, please consult the product SDS.

Package

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