

Photo and moisture dual curing adhesive

INTRODUCTION

FT-UV0041 is a UV curing adhesive with a shadow curing mechanism. It can be completely cured by the moisture reaction mechanism in the place where UV light can not be irradiated to avoid the uncovered monomer causing the electrical performance badly. It can be applied to bond the connector PVC/PET/PI with metal connectors. Showing excellent surface drying, this resin will not bond hands or dust. This rapid-cured product is particularly suited for encapsulation application in electronic field.

FEATURES

1. This resin is suited for bonding of many plastics.
2. This product will not destroy by external force with high strength and fracture energy.
3. This product can use in the surface for cover to waterproof, dustproof, moisture-proof and other applications.
4. This product is suitable for spray coating, soaking, brushing, etc.
5. The hardness of this product will be more harder after two-stage moisture reaction.
6. This product complies to the 2011/65/EU RoHS regulations.

TYPICAL UNCURED PROPERTIES

PROPERTIES	
Appearance	Liquid
Color	Colorless
Viscosity 25°C, cps	130~300
Specific Gravity, 25 C	1.05
Solvent Content %	0

TYPICAL CURING PROPERTIES

Curing Equipment: Mercury-vapor lamp / Halogen lamp

Recommended Wavelength, nm	310 - 420
Recommended main band, nm	365
Minimum Light Intensity, mW/cm ²	>50
Minimum Light Energy, mJ/cm ²	1500-2000

TYPICAL CURED PROPERTIES

CTE* (<Tg), μm/m/oC	65
CTE* (>Tg), μm/m/oC	205
Durometer Hardness ASTM D2240-03, Shore D	77
Linear shrinkage, %	3.41
Volume Shrinkage, %	11.63
Specific Gravity@25 oC	1.19
Refractive Index nD @25.2 oC	1.5160
Elongation, %	6
Water Absorption(25oC / 24hr), %	0.2
Shear Strength, PMMA vs. PMMA, kg/cm2	63
Shear Strength, FR4 vs. FR4, kg/cm2	83
Shear Strength, PC vs. AL, kgf/cm2, 25 oC	73
Flexural modulus, Mpa, 25 oC	312
Degradation Temp., (TGA 10oC / min) oC	318
Volume Resistivity, ohm-cm	1.6*10 ¹⁴
Surface Resistivity, ohm	1.4*10 ¹³
Dielectric Constant, 100HZ	3.2
Dielectric Constant@1KHz	3.1
Dielectric Constant@1MHz	3.0
Dielectric Strength, KV/mm	17
Temperature Range, oC	-40~150

DIRECTION OF USE

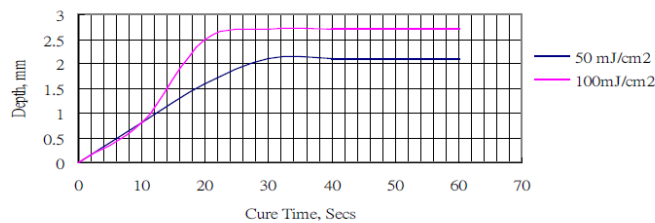
1. It should be applied to a clean surface which is free of dirt, grease or mold release. In many cases, a simple solvent wipe is sufficient.
2. For maximum bonding strength apply adhesive evenly to both surfaces to be jointed.
3. Cure time on the really part will depend upon fators such as part geometry, materials to be bonded, bondline thickness and efficiency of the UV light. Cure schedule should be confirmed with actual production parts and equipment.
4. Please standardize the UV lamp intensity and illumination. Over exposure will not affect the resin properties, but the resin properties will be changed if there is not enough exposure. The resin may have lower reaction rate and may not pass the envrionmental test experiments.
5. This product may cause skin irritation to sensitive personnel.

MECHANICAL TEST



Item : PMMA vs. PMMA

DEPTH OF CURE VS u_v IRRADIANCE



STORAGE AND SHELF LIFE

This product needs to be insulated from moisture to avoid pre-reaction. It is recommended to use the aluminum foil bag to seal and place it in the refrigerator to prolong the pot life after using. The high temperature will affect the life of this product. This product should be storage at refrigerator (-10oC ~ 10oC) before opening the containers. Shelf life of this product is six months.

CAUTION

However, contact with skin is likely to produce mild transient reddening. It is important to remove adhesive from skin with soap and water thoroughly. DO NOT use solvents for cleaning hands. This product is of moderate acute toxicity by swallowing. If swallowed, call a physician. Avoid contact with eyes. In case of contact, flush with water for at least 15 minutes and get medical attention immediately. For specific information on this product, consult the Material Safety Data Sheet.