GLUDITEC
Glue & Dispensing Technology

Technical Data Sheet

UV3102-M

UV/moisture cure Conformal Coating

UV3102-M is a one component low viscosity UV and moisture curing conformal coating adhesive. It can be quickly cured to form a transparent adhesive layer under UV radiation. This product is designed to protect printed circuit boards and related equipment from environmental erosion, so as to improve and extend their service life. UV3102-M fluoresces a bright blue when exposed to UV light (365nm) for easy inspection of coating coverage.

FEATURE

- Dual cure UV coating, one component
- Solvent-free, Halogen-free, Low odor
- Excellent moisture, heat and chemical resistance.
- Excellent adhesion
- Complies to the RoHS directive 2015/863/EU and 2011/65/EU.

TYPICAL UNCURED PROPERTIES

Properties	UV3102-M
Composition	Acrylated Urethane
Appearance	Liquid
Color	Transparent
Viscosity @ 25°C, cps	75
Specific Gravity, g/cm³	1.05

TYPICAL CURING PROPERTIES

Properties	UV3102-M
UV Curing:	
Lamp type	Mercury lamp
Recommended Intensity, mW/cm^2	100
Energy, mJ/cm^2	> 3000
Humidity Curing:	
Full Cure Time @ 25^{0}C, hr	72

DIRECTION OF USE

1. This product should be applied to a clean surface which is free of dirt, grease or mold release.

2. Curing speed depends on many variables, including lamp intensity, distance from the light source, required depth of cure, coating thickness and amount of material in shadowed areas.

3. The specified final properties cannot be achieved by humidity curing alone. Actual moisture cure time may vary depending on the layout and assembly of the printed circuit board.

4. The source air used for spraying must be dry (a dry inert gas is highly recommended) to prevent premature curing by the secondary cure mechanism. The spraying should be done with adequate ventilation. Final coating thickness is influenced by board size, part geometry and application method.

5. The product is a moisture curing material and care should be taken to protect process vessels and partial containers from moisture.

TYPICAL CURED PROPERTIES

Properties	UV3102-M
Durometer hardness, shore D	80
Glass Transition Temp., (TMA) ^{o}C	87
Dielectric strength, kV/mm	20
Dielectric Constant @1MHz	2.75
Dissipation Factor @1MHz	0.013
Volume Resistivity, ohm.cm	2.8 x 10^{16}
Surface Resistivity, ohm	3.1 x 10^{16}
CTE, @25^{0}C, W/m.K	0.28
High temperature and high humidity test, @60^{0}C, 90%RH	Non-corrosive Cross-cut test (Lv.0)
Thermal shock, -20 – 70^{0}C,100 cycles	Non-corrosive Cross-cut test (Lv.0)
Low temperature test, @-20^{0}C, 7 days	Non-corrosive Cross-cut test (Lv.0)
Recommended Operating Temperature, ^{0}C	-40 -135

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STORAGE AND SHELF LIFE

Store the material in a cool, dark, and dry place when not in use.

Resealing the container under dry inert gas, such as nitrogen, extends shelf life.

This material has a 12-month shelf life from date of production when stored at 8-28°C temperature in the original, unopened container.

CAUTION

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurrent application to the skin. 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 resin 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.