



UVEXS Incorporated

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The brightest ideas in UV curing

605 SERIES

UV Curable Encapsulants

DESCRIPTION

A multi-purpose polymer series for bonding, sealing or potting in electronic applications requiring low corrosion properties and very good dielectric performance. The single component formulas have a range of viscosities from self-leveling to thixotropic as desired for specific applications. Fully cures with UV while shadow areas may be post cured with heat. Cures to a tough, moderately flexible film with good adhesion to printed circuit boards and a variety of plastics and metals. Excellent for high performance environmental protection.

CURE SCHEDULE

Expose with a medium pressure mercury vapor type lamp operating at a minimum of 200 watts per inch input power.

Minimum intensity: 40 mW/cm² @ 254 nm
140 mW/cm² @ 365 nm
Exposure: <10 seconds, depends on thickness.
Post cure option: 15 minutes @ 110°C

UNCURED PROPERTIES

Base resin: Acrylated urethane
Solids: 100%, no solvents
Components: one
Color: clear to translucent
Flash point: >200°F

Viscosity by product:
605A 32,000 cps, thixotropic
605B 40,000 cps, thixotropic *
605C 79,000 cps, thixotropic
605CT 110,000 + cps, thixotropic
605D 6,000 cps
605E 800 cps

* Replacement for Dow Corning P/N X3-1554

CURED PROPERTIES

Hardness: 69 (shore D)
Tensile: 3100 psi
Elongation: 39%
Dielectric constant: 10² Hz 5.39
10⁵ Hz 4.37

Dissipation factor: 10² Hz .0449
10⁵ Hz .0518
Dielectric strength: 750 V/mil @ 20 mils
Surface resistivity: 1.3 x 10¹³ ohms.
Volume resistivity: 1.1 x 10¹⁴ ohms - cm
Solder dip: Resistant per Mil Std 202F, Method 210
Thermal shock: Passes 50 cycles per Mil Std 202F, Method 107 (B-2), -65° to 125°C.
Solvents: Resists solvent and aqueous PCB cleaning processes
Fungus resistance: Passes Mil Std 454, req. 1
Humidity: Passes 10 cycles per Mil Std 202F, Method 106

APPLICATION

605 encapsulant products are packaged in 30cc, 6oz and 11oz cartridges, as well as quart and gallon containers. Cartridges may be used with manual or automated pneumatic dispensing systems. Recommended maximum application depth is 0.4 inches.

STORAGE AND HANDLING

Shelf life is warranted for a minimum of 6 months from date of shipment when stored in darkness at 50 to 80°F, in its original container.

HANDLING

Avoid contact with skin and eyes as directed on the MSDS. Gloves are recommended when handling, and ventilation should draw vapors away from operators. Clean uncured material from work area surfaces with standard solvents (IPA, MEK or acetone).

The information in this data sheet is made available to assist the user in determining possible applications for UVEXS products. The final determination of the suitability of a product for a particular use is the sole responsibility of the user. To the best of our knowledge this data sheet is accurate, however, UVEXS assumes no liability for the accuracy of this information.

