

PRODUCT SPECIFICATION

350-E

UV Adhesive

Description:

Engineered for demanding electronics and encapsulation applications, this single-component, 100% solids photopolymer cures rapidly under UV light, visible light, or heat – providing a reliable dual-cure mechanism when shadowed areas or insufficient UV exposure prevent complete photo-polymerisation.

The clear, colourless formulation features superior surface wetting, low volumetric shrinkage, and exceptional joint flexibility, outperforming conventional adhesives across a wide variety of substrates. Designed for precision electronics assembly, it delivers long-term durability and robust environmental resistance against thermal stress, moisture, and chemical exposure.

Typical Properties of Cured/Uncured Material:

Liquid State		Cured State	
Base	Urethane Methacrylate	Tensile @ break, ASTM D638 (psi)	1,250
Colour	Clear, amber	Elongation @ break (%)	150
Specific Gravity (25°C)	1.1	Hardness, ASTM D2240 Shore D	45
Refraction Index (25°C)	1.5	Tg, ASTM E-831 (°C)	30
Viscosity (cP)	17,000-19,000	Linear Shrinkage (%)	1.2

UV Curing System:

Lamp Type	5" x 5" Flood	3/16" Spot	1" x 6" Focused
Max. Lamp Intensity @ 365 nm	300 mW/cm ²	4000 mW/cm ²	8000 mW/cm ²
Adhesive Absorption Range (nm)	300 - 480	300 - 480	300 - 480
Cure Speed (Sec)			
Glass to Glass Bonding	2	4	<1
Surface Cure Speed	6	5	<1

Bond Strength

(Shear Strength, psi, ASTM D4501):

psi	N/mm ²
2400 to 3300	17 to 22

Cure Conditions:

Cure can be achieved using both low and high-intensity UV light sources. Under a low UV intensity of 30 mW/cm, highly transmissive substrates with joint gaps under 0.25 mm (0.010") cure in 5 seconds, while gaps of 1.75 mm to 2.25 mm (0.070" to 0.090") cure within 10 to 20 seconds. Under a high UV intensity of 100 mW/cm, highly transmissive substrates with gaps under 0.25 mm (0.010") cure in 2 seconds, while larger gaps of 2.5 mm to 5.0 mm (0.100" to 0.200") achieve full cure within 10 to 20 seconds.

Directions For Use:

This adhesive is UV sensitive. Exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling. Adhesive product should be dispensed from applicators with black feed lines. For best performance bond surfaces should be clean and free from grease.

UV cure rate is depends on lamp intensity, distance from light source, depth of cure needed or bond line gap and light transmittance of the substrate through which the radiation must pass.

Recommended intensity for cure in an adhesive application are 40-mW/cm² minimums with an exposure time of 5-6 times the fixture time at this same intensity. For tack free surface cure, as necessary in coating, potting or tacking applications, higher intensity UV is required.

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