

GLT-UV-BL01

UV Curing, Single-component Modified Urethane Adhesive

GLT-UV-BL01 is a single component, modified urethane based adhesive with excellent adhesion on various polymeric substrates as polycarbonate, polyamide, PET, ABS, acrylic, etc when cured upon exposure to ultraviolet light. GLT-UV-BL01 is formulated to cure with excellent peel and impact resistance. GLT-UV-BL01 cures rapidly upon exposure to ultraviolet (UV) light or ultraviolet visible (UVV) light of sufficient intensity.

FEATURE

- One-part, UV curing urethane based adhesive
- Superior bonding strength
- High impact strength, high peel resistance
- Compatible with various substrates: polycarbonate, polyamide, PET, ABS, acrylic, etc.

TYPICAL UNCURED PROPERTIES

Properties	
Base	Modified urethane
Appearance	Black paste
Viscosity *25°C, cps	1,000 ~ 3,000
Solids content, %	100
Specific gravity	1.10
Flash point, °C	>150
Vapour Pressure @20°C, mmHg	< 0.25
Odour	Mild

TYPICAL CURING PROPERTIES

GLT-UV-BL01 cures rapidly upon exposure to ultraviolet (UV) light or ultraviolet visible (UVV) light of sufficient intensity. Cure speed by UV is a function of UV light source, UV intensity, and bondline thickness.

Recommended Curing Condition	
Type of radiation	UV-A & UV-V
Range of wavelength, nm	320 - 450
Energy, mJ/cm ²	4,000

CAUTION

1. Exposure to short wave ultraviolet light can cause a burning of the skin and eyes. Care should be taken to avoid exposure of the operator to direct or reflected radiation. User should wear eye protection.
2. Avoid prolonged breathing of fumes. Use in well ventilated rooms.
3. The uncured resin may irritate skin and eyes for sensitive users. Minimise skin contact. In case of eye contact, flush with water for at least 15 minutes and seek medical attention. In case of skin contact, wash with soap and water.

TYPICAL CURED PROPERTIES

PHYSICAL PROPERTIES	
Appearance	Black polymer
Hardness, Shore D	20
Elongation @break, %	190
Tensile strength @break, N/mm ²	2.7
Modulus, N/mm ²	107.8
PERFORMANCE PROPERTIES	
Shear Strength (PC/ PC), N/mm ²	4.3
THERMAL PROPERTIES	
Suggested temperature range, °C	-40 to 140

Actual performance at service temperature should be determined on actual assemblies and under actual service conditions.

HANDLING

This product is UV sensitive. Exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling. 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 dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmittance of the substrate through which the radiation must pass.

Excess adhesive can be wiped away with organic solvent. Bonds should be allowed to cool before subjecting to any service loads.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

STORAGE

Product shall be ideally stored in a cool, dry location in unopened containers at 5°C unless otherwise labelled. To prevent contamination of unused product, do not return any material to its original container.