

Multi-Cure® 620-SV01 Phenolic and Filled Plastics to Glass and Metal

Multi-Cure® 620-SV01 adhesive is a high tensile strength, UV-curable resin that is especially well suited for general-purpose potting and adhesive applications. This adhesive forms clear bonds to glass, metal, phenolic, filled Nylon, ferrite, ceramic and other materials. Multi-Cure 620-SV01 can be cured with UV light, heat, or pre-applied activator. Dymax adhesive/activator bonding systems comply with the Montreal Protocol and U.S. Clean Air Act of 1990. This product is in full compliance with RoHS directives 2015/863/EU.

TYPICAL UNCURED PROPERTIES (not specifications)

| | | |
|--------------------|-------------------------|-------------|
| Solvent Content | No Nonreactive Solvents | |
| Chemical Class | Acrylated Urethane | |
| Appearance | Clear Translucent Gel | |
| Solubility | Organic Solvents | |
| Viscosity (20 rpm) | 24,000 cP – 30,000 cP | ASTM D-2556 |

TYPICAL CURED PROPERTIES (not specifications)

| | | |
|---|---------------------------------------|-------------|
| Durometer Hardness | D80 | ASTM D-2240 |
| Tensile at Break | 5,200 psi (35.9 MPa) | ASTM D-638 |
| Elongation at Break | 50% | ASTM D-638 |
| Modulus of Elasticity | 300,000 psi | ASTM D-638 |
| Tensile (Lap) Shear (steel to steel) | 3,300 psi | ASTM D-1002 |
| Tensile Compression Shear | | |
| Glass-to-Glass | 3,800 psi (exceeds strength of glass) | DSTM D-250* |
| Glass-to-Steel | 3,400 psi (exceeds strength of glass) | DSTM D-251 |
| Water Absorption (24 h) | 1.1% | ASTM D-570 |
| Boiling Water Absorption (2 h) | 3.0% | ASTM D-570 |
| Linear Shrinkage | 3% | DSTM D-101 |
| Coefficient of Linear Thermal Expansion | 90 x 10 ⁻⁶ in/in/°C | ASTM D-696 |

*DSTM refers to DYMAX Standard Test Method

ELECTRICAL

| | | |
|----------------------------|-----------------------------|-------------|
| Dielectric Strength | 1,600 V/mil | ASTM D-1304 |
| Volume Resistivity | 7.5 x 10 ¹³ Ω*cm | ASTM D-1304 |
| Surface Resistivity | 2.2 x 10 ¹⁴ Ω | ASTM D-1304 |
| Dissipation Factor, 1 MHz | 0.06 | ASTM D-1304 |
| Dielectric Constant, 1 MHz | 4.10 | ASTM D-1304 |

CURE DATA - Using 365 nanometer UV light:

| | Cure Time (Seconds) | Intensity (mW/cm ²) | DYMAX Lamps |
|--------------------------------|------------------------|------------------------------------|----------------|
| Tack-free cure (1/8-inch bead) | 30 | 175 | 5000-EC |
| Depth of cure (1/4 inch) | 15 | 175 | 5000-EC |
| Fixture between glass slides | 1-2 | 50 | 2000-EC |



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Shadowed areas can be cured with activator or heat.

Activator is placed on one surface and the adhesive on the mating surface. Curing takes place at room temperature when the parts are mated. Activator requires well-mated parts (up to 0.010-inch gap). Well-mated parts fixture (achieve handling strength) in less than a minute. See Dymax Technical Bulletin "Guidelines for Activator Curing" for complete instructions for all activators.

Heat may be used after UV cure to cure shadowed areas or after activator cure to accelerate cure. The following guidelines depend on the amount of adhesive:

| <u>Minimum Adhesive Temperature</u> | <u>Time</u> |
|-------------------------------------|-------------|
| 110°C (225°F) | 60 Minutes |
| 120°C (250°F) | 30 Minutes |
| 150°C (300°F) | 15 Minutes |

DISPENSING AND HANDLING ADHESIVE

Multi-Cure 620-SV01 adhesive is available in various packages such as syringes, cartridges, bottles, and pails. They may be dispensed with a variety of automatic bench-top syringe applicators or other equipment as required. Direct questions relating to dispensing and curing systems for specific applications to the Dymax Application Engineering.

Wear impervious gloves and/or barrier cream. Repeated or continuous skin contact with liquid adhesive will cause irritation and should be avoided. Do not wear absorbent gloves. Remove adhesive from skin with soap and water. Never use solvents to remove adhesive from skin or eyes.

STORAGE AND SHELF LIFE

Store material in a cool, dark place when not in use. Do not expose to UV light or sunlight. Material may polymerize upon prolonged exposure to ambient light. Replace lid immediately after use. This material has a 12-month shelf life from date of manufacture, unless otherwise specified, when stored between 10°C (50°F) and 35°C (90°F) in the original, unopened container.

CAUTION

For industrial use only. Avoid breathing vapors. Avoid contact with eyes and clothing. In case of contact, immediately flush with water for at least 15 minutes; get medical attention. Wash clothing before reuse. Keep out of reach of children. Do not take internally. If swallowed, induce vomiting at once and call a physician. Repeated or continuous skin contact with liquid adhesive will cause irritation and should be avoided. For specific information, refer to the product Material Safety Data Sheet.

GENERAL INFORMATION

This product is intended for industrial use only. Keep out of the reach of children. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wear impervious gloves. Repeated or continuous skin contact with uncured material may cause irritation. Remove material from skin with soap and water. Never use organic solvents to remove material from skin and eyes. For more information on the safe handling of this material, please refer to the Safety Data Sheet before use.

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