

ULTRA LIGHT-WELD™ 6-602-GEL-REV-A General Purpose Bonding Adhesive

DESCRIPTION

6-602-GEL-REV-A is a high-strength, structural adhesive that is used in a variety of applications. Tough, resilient bonds form upon exposure to UV/Visible light in applications such as coil terminating, unitizing commutator windings, and tamper proofing adjustment screws. 6-602-GEL-REV-A adhesive bonds well to steel, aluminum, and glass surfaces. 6-602-GEL-REV-A 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	None - 100% Reactive Solids	
Chemical Class	Urethane Acrylate	
Appearance	Clear/Straw Liquid	
Flash Point	>93°C (200°F)	
Solubility	Alcohols/Chlorinated Solvents/Ketones	
Viscosity (20 rpm)	30,000 cP (nominal)	ASTM D-2556

TYPICAL CURED PROPERTIES (not specifications)

Durometer Hardness	D75	ASTM D-2240
Tensile at Break	3325 psi (22.9 MPa)	ASTM D-638
Elongation at Break	28%	ASTM D-638
Modulus of Elasticity	210,000 psi (1450 MPa)	ASTM D-638
Tensile (Lap) Shear (steel-to-steel)	3,700 psi (25.5 MPa)	ASTM D-1002
Water Absorption (24 h)	5.0%	ASTM D-570
Boiling Water Absorption (2 h)	8.0%	ASTM D-570
Linear Shrinkage	2%	DSTM D-101*
Coefficient of Linear Thermal Expansion	100 x 10 ⁻⁶ cm/cm/°C	ASTM D-696

ELECTRICAL

Dielectric Strength	18.9 kV/mm	JISK-6911
Surface Resistivity	3 x 10 ¹² Ω	JISK-6911

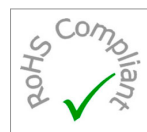
CURE DATA - Using 365 nanometer UV light:

	Cure Time (Seconds)	Intensity (mW/cm ²)	Dymax Light-Welder® Lamps
Tack-Free Cure (1/8-inch bead)	10	150	5000-EC
Depth of Cure (1/4 inch)	20	150	5000-EC
Fixture Between Glass Slides	1	50	2000-EC

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Technical Data Collection Prior to 2003



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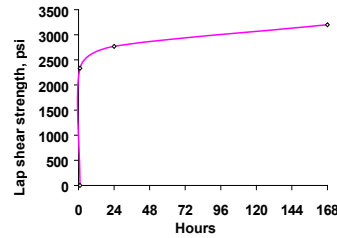
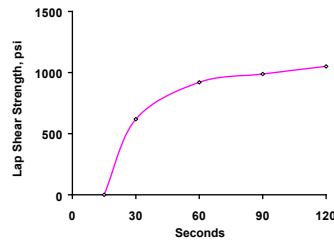
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BOND STRENGTH DEVELOPMENT USING 501-E ACTIVATOR**Shadowed areas can be cured with activator or heat.**

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 0.015-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:

Minimum Adhesive Temperature

110°C (225°F)
120°C (250°F)
150°C (300°F)

Time

60 Minutes
30 Minutes
15 Minutes

DISPENSING AND HANDLING ADHESIVE

This material may be dispensed with a variety of manual and automatic applicators or other equipment as required. Questions relating to dispensing and curing systems for specific applications should be referred to 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 the material in a cool, dark place when not in use. Do not expose to light. This product may polymerize upon prolonged exposure to ambient and artificial light. Keep covered when not in use. This material has an 18-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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