

## Multi-Cure® 602-GEL-REV-A General Purpose Bonding Adhesive

Dymax Multi-Cure® 602-GEL-REV-A is a high-strength structural adhesive used in a wide variety of applications. Tough, resilient bonds form upon exposure to UV light in applications like coil terminating, unitizing commutator windings, and tamper-proofing adjustment screws. Multi-Cure® 602-GEL-REV-A adhesive bonds well to steel, aluminum, and glass surfaces. This product 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	3,325 psi (22.9 MPa)	ASTM D-638
Elongation at Break	28%	ASTM D-638
Modulus of Elasticity	210,000 psi (1,450 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 <sup>-6</sup> cm/cm/°C	ASTM D-696
Glass Transition T <sub>g</sub>	100°C	DSTM-256*

\*DSTM refers to Dymax Standard Test Method

### ELECTRICAL

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

### TYPICAL LIGHT-CURE DATA - Using 365 nanometer UV light:

	Cure Time (Seconds)	Intensity (mW/cm <sup>2</sup> )	Dymax Flood Lamps
Tack-free cure (1/8-inch bead)	10	175	5000-EC
Depth of cure (1/4 inch)	10	175	5000-EC
Fixture between glass slides	1-2	50	2000-EC



© 2019 Dymax Corporation. All rights reserved. All trademarks in this guide, except where noted, are the property of, or used under license by Dymax Corporation, U.S.A.

Technical data provided is of a general nature and is based on laboratory test conditions. Dymax does not warrant the data contained in this bulletin. Any warranty applicable to the product, its application and use is strictly limited to that contained in Dymax standard Conditions of Sale. Dymax does not assume responsibility for test or performance results obtained by users. It is the user's responsibility to determine the suitability for the product application and purposes and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this communication shall act as a representation that the product use or application will not infringe on a patent owned by someone other than Dymax or act as a grant of license under any Dymax Corporation Patent. Dymax recommends that each user adequately test its proposed use and application before actual repetitive use, using the data in this communication as a general guideline. Technical Data Collection Prior to 2002. REV. 05/29/2019

**Dymax Corporation**  
+1.860.482.1010 | info@dymax.com | [www.dymax.com](http://www.dymax.com)

**Dymax Europe GmbH**  
+49 611.962.7900 | info\_de@dymax.com | [www.dymax.de](http://www.dymax.de)

**Dymax Engineering Adhesives Ireland Ltd.**  
+353 21.237.3016 | info\_ie@dymax.com | [www.dymax.ie](http://www.dymax.ie)

**Dymax Oligomers & Coatings**  
+1.860.626.7006 | info\_oc@dymax.com | [www.dymax-oc.com](http://www.dymax-oc.com)

**Dymax UV Adhesives & Equipment (Shanghai) Co. Ltd.**  
+86.21.37285759 | dymaxasia@dymax.com | [www.dymax.com.cn](http://www.dymax.com.cn)

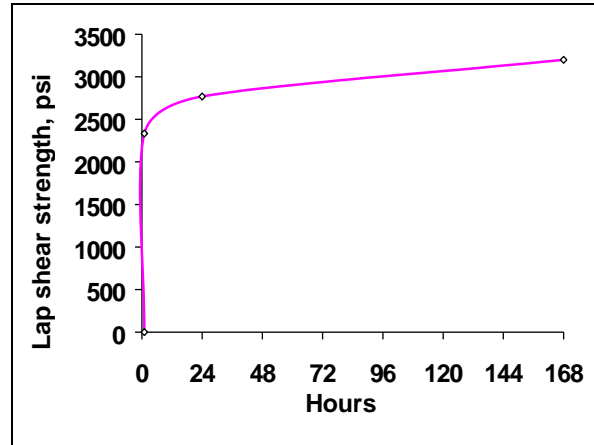
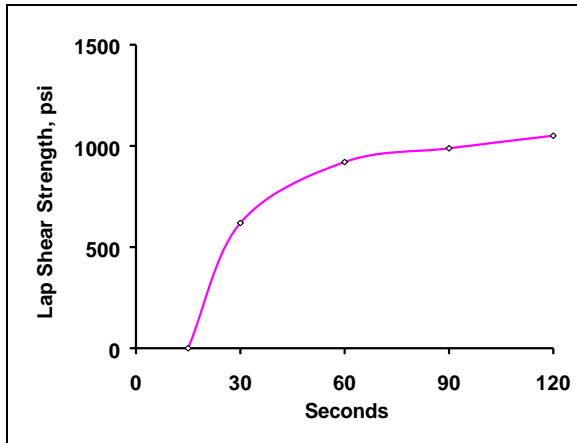
**Dymax UV Adhesives & Equipment (Shenzhen) Co. Ltd.**  
+86.755.83485759 | dymaxasia@dymax.com | [www.dymax.com.cn](http://www.dymax.com.cn)

**Dymax Asia (H.K.) Limited**  
+852.2460.7038 | dymaxasia@dymax.com | [www.dymax.com.cn](http://www.dymax.com.cn)

**Dymax Asia Pacific Pte. Ltd.**  
+65.6752.2887 | info\_ap@dymax.com | [www.dymax.com.cn](http://www.dymax.com.cn)

**Dymax Korea LLC**  
+82.31.608.3434 | info\_kr@dymax.com | [www.dymax.com/kr](http://www.dymax.com/kr)

**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:

<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**

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 32°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.

The data provided in this document are based on historical testing that Dymax performed under laboratory conditions as they existed at that time, and are for informational purposes only. The data are neither specifications nor guarantees of future performance in a particular application. Dymax does not guarantee that this product's properties are suitable for the user's intended purpose.

Numerous factors—including, without limitation, transport, storage, processing, the material with which the product is used, and the ultimate function or purpose for which the product was obtained—may affect the product's performance and/or may cause the product's actual behavior to deviate from its behavior in the laboratory. None of these factors are within Dymax's control. Conclusions about the behavior of the product under the user's particular conditions, and the product's suitability for a specific purpose, cannot be drawn from the information contained in this document.

It is the user's responsibility to determine (i) whether a product is suitable for the user's particular purpose or application and (ii) whether it is compatible with the user's intended manufacturing process, equipment, and methods. Under no circumstances will Dymax be liable for determining such suitability or compatibility. Before the user sells any item that incorporates Dymax's product, the user shall adequately and repetitively test the item in accordance with the user's procedures and protocols. Unless specifically agreed to in writing, Dymax will have no involvement in, and shall under no circumstances be liable for, such testing.

Dymax makes no warranties, whether express or implied, concerning the merchantability of this product or its fitness for a particular purpose. Nothing in this document should be interpreted as a warranty of any kind. Under no circumstances will Dymax be liable for any injury, loss, expense or incidental or consequential damage of any kind allegedly arising in connection with the user's handling, processing, or use of the product. It is the user's responsibility to adopt appropriate precautions and safeguards to protect persons and property from any risk arising from such handling, processing, or use.

The specific conditions of sale for this product are set forth in Dymax's Conditions of Sale which are available at <https://dymax.com/resources/sales-terms-conditions>. Nothing contained herein shall act as a representation that the product use or application is free from patents owned by Dymax or any others. Nothing contained herein shall act as a grant of license under any Dymax Corporation Patent.

Except as otherwise noted, all trademarks used herein are trademarks of Dymax. The "®" symbol denotes a trademark that is registered in the U.S. Patent and Trademark Office.

The contents of this document are subject to change. Unless specifically agreed to in writing, Dymax shall have no obligation to notify the user about any change to its content.