

**ULTRA LIGHT WELD<sup>®</sup> VL300  
HIGH PERFORMANCE GLASS ADHESIVE****INTRODUCTION**

Dymax Ultra Light-Weld adhesives can be cured with UV or visible light. Ultra Light-Weld adhesives provide faster, deeper cures, increase productivity, lower assembly costs and enhance worker safety. When cured with Dymax Light Welder<sup>®</sup> UV lamps, these adhesives provide optimum process flexibility. They allow the user to select the optimum combination of adhesive and cure mechanism to meet individual process and performance requirements.

**DESCRIPTION**

Ultra Light-Weld VL300 bonds in seconds to glass substrates upon exposure to either longwave UV or visible light. It forms tough, clear bonds and is excellent for adhering to clear as well as tinted glassware. These durable bonds are dishwasher safe and exhibit exceptional tensile strength as well as vibration and impact resistance. Acceptable bonds form to a variety of other substrates such as ceramic, ferrite and metal surfaces.

**TYPICAL USES**

Glass/Brick Assembly  
Stemware  
Glass Cases

**SPECIAL FEATURES**

Bond Tinted/Colored Glass  
Visible Light or UV Cure Capability  
Adhesion/Toughness

**BENEFITS**

Bond tinted(UV-blocked glass) with visible light  
Faster cures with Dymax Light-Welder<sup>®</sup> UV Lamps  
Flexible, tough moisture resistant bonds

**UNCURED PROPERTIES**

Solvent Content	None – 100% reactive solids	
Chemical Class	Urethane (Meth) Acrylate	
Appearance	Clear	
Solubility	Alcohol/Chlorinated Solvents/Ketones	
Toxicity	Low	
Flash Point	>93° C (200° F)	
Viscosity (20 rpm)	4,000 cP (nominal)	ASTM D-1084

**CURED PROPERTIES**

<i>PHYSICAL</i>	<i>Data</i>	<i>Test Method</i>
Durometer Hardness	D80	ASTM D-2240
Elongation at Yield	9%	ASTM D-638
Tensile at Yield	6,100 psi	ASTM D-638
Water Absorption (24 h)	0.7%	ASTM D-570
Boiling Water Absorption (2hr)	307%	ASTM D-570
Linear Shrinkage	1.9%	* DSTM D-101
Thermal Limit (brittle/degrades)	-51° to 149°C (-60°/+300°F)	* DSTM D-200

\*DSTM refers to Dymax Standard Test Method

**TYPICAL CURE DATA**

<b>Lamp</b>	<b>2000-EC</b>	<b>5000-EC</b>	<b>PC-3</b>	<b>3010-EC</b>
Light Type	UV	UV	UV	UV
Lamp Type	Flood	Flood	Spot	Spot
Intensity (mW/cm <sup>2</sup> ) at Peak	50	2000	1000	1800
Wavelength	@ 365 nm	@ 365 nm	@ 365 nm	@ 365 nm
Wavelength (nm) working range	300-500	300-500	300-500	300-500
Cure Speed (seconds)				
Between glass	1	<1	<1	<<1
1/8" Bead	30-60	25	20	10
Surface Cure	60-120	35	20	10
Cure Depth in 1 Minute (inch)	0.25	0.25	0.25	0.5

**DISPENSING AND HANDLING ADHESIVE**

The Ultra Light-Weld<sup>®</sup> VL300 is packaged in a variety of containers. It may be dispensed with a variety of automatic bench-top syringe applicators or other equipment as required. For specific technical recommendations relating to dispensing and curing systems, call Dymax Technical Service at (860) 482-1010.

**SAFETY**

Repeated or continuous skin contact with liquid adhesive ("resin") will cause skin irritation or contact dermatitis, which in some cases, can be severe. Avoid this possibility by wearing impervious gloves and/or a barrier cream. Gloves made of rubber (including latex and any other rubber product) are not impervious. Nitrile (an artificial rubber) is preferred. Do not breathe the vapors from the adhesive. The user must be familiar with the Material Safety Data Sheet for the product before use. UV light can damage your eyes. Read and follow all instructions for the safe use of any UV light source that come with the device.

**STORAGE AND SHELF LIFE**

Do not expose to UV or visible light source or sunlight. Ultra Light-Weld VL300 has a minimum one year shelf life when stored below 32°C (90°F) out of sunlight in original, unopened container. Material can polymerize upon prolonged exposure to ambient light. Replace lid immediately after pouring. Keep covered at all other times.

**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; for eyes, get medical attention. Wash clothing before reuse. Keep out of the reach of children. Do not take internally. If swallowed, vomiting should be induced at once and call a physician. For specific information, refer to the product Material Safety Data Sheet before use.

1997, 1998 Dymax Corporation  
MD<sup>®</sup> Medical Device Adhesives is also a registered trademark of Dymax Corporation

The data contained in this bulletin which represents typical results, is furnished for information only, and is believed to be reliable. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the users responsibility to determine suitability for the user's purpose of any product or method mentioned herein and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use thereof. Nothing in this bulletin is to be interpreted as a representation of freedom from domination of patents owned by others or a license under a Dymax Corporation patent. We recommend that each prospective user test the proposed application before repetitive use, using the data as a guide. For specific information, refer to the Material Safety Data Sheet before use.

DYMAX CORPORATION \* 51 GREENWOODS ROAD, CT 06790 \* TEL: 860-482-1010 \* FAX: 860-496-0608  
DYMAX EUROPE \* TRAKEHNER STRASSE 3 \* D-60487 FRANKFURT a. M. GERMANY \* TEL: 49-69-7165-3568 \* FAX: 49-69-7165-3830  
Dymax, Light Weld, Light-Welder, Ultra Light-Weld and Multi-Cure are registered trademarks of Dymax Corporation  
DYMAX USA E-Mail: [info@dymaxcorp.com](mailto:info@dymaxcorp.com) \* Internet: <http://www.Dymax.com> \* DYMAX EUROPE E-Mail: [dymaxinfo@dymax.de](mailto:dymaxinfo@dymax.de)

Distributed by: Dewey Associates International, Inc. 459 Main Street, Suite 102, New Rochelle, NY 10801. Ph: 800.448.2306 / 914.633.4081  
Fax: 914.633.4175 e-mail: [deweyint@glassbond.com](mailto:deweyint@glassbond.com) [www.glassbond.com](http://www.glassbond.com)