

23 February 2005

ULTRA LIGHT-WELD® 3086-RF SERIES SAN • STYRENE • ACRYLIC • GLASS • METAL

INTRODUCTION

DYMAX Ultra Light-Weld® structural adhesives can be cured with UV or Visible light. Ultra Light-Weld's faster, deeper cure, increases productivity, lowers assembly costs and enhances worker safety. When cured with DYMAX Light Welder® 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 3086-RF Series are very fast, structural strength adhesives, which form excellent bonds to SAN, styrene, acrylic, glass, ceramic and metal. Hard, rigid bonds form in seconds upon exposure to longwave (365 nm) UV and visible light. 3086-RF Series adhesive are colored red and fluoresce to provide easy in-line inspection of the adhesive bond area.

TYPICAL UNCURED PROPERTIES (not specifications)

Solvent Content	None	
Composition	Urethane Oligomer/(Meth)Acrylate Monomer Blends	
Appearance	Red Liquid	
Flash Point	>95°C (200°F)	
Solubility	Alcohol/Chlorinated Solvents	
Toxicity	Low	
Viscosity	3086-RF 125 cP (nominal)	ASTM D-1084
	3086-T-RF 6,500 cP	ASTM D-2556

TYPICAL CURED PROPERTIES (not specifications)

Durometer Hardness	D85	ASTM D-2240
Elongation at Break	4.0%	ASTM D-638
Tensile at Break	7,250 psi	ASTM D-638
Elongation at Yield	3.5%	ASTM D-638
Tensile at Yield	8,000 psi	ASTM D-638
Volume Shrinkage Upon Cure	7%	
Refractive Index	1.48	ASTM D-542
Thermal Limit (brittle/degrades)	-30° to 125°C (-20° to 255°F)	
Water Absorption	0.6%	ASTM D-570

DYMAX Corporation - 51 Greenwood Road - Torrington, CT 06790 - Phone: 860-482-1010 - Fax: 860-496-0608
E-mail: info@dymax.com - www.dymax.com

DYMAX Europe GmbH - Trakehner Strasse 3 - D-60487 Frankfurt am Main - Germany - Phone: (49) 69-7165-3568
Fax: (49) 69-7165-3830 - E-mail: dymaxinfo@dymax.de - www.dymax.de

DYMAX®, Light-Weld®, Light-Welder®, Multi-Cure®, Ultra Light-Weld®, MEDI-CURE® and MD® are trademarks of DYMAX Corporation



CURE DATA

Using 365 nm wavelength UV light ^[1]:

	Cure Time (seconds)	Intensity ^[2] mW/cm ²	DYMAX Light-Welder® Lamps
Fixture between glass slides	2	50	2000-EC
Tack free surface cure (0.125 inch bead)	10	150	5000-EC
Nominal Cure Depth (0.375 inch)	60	50	2000-EC

DISPENSING AND HANDLING ADHESIVE

DYMAX 3086-RF series are 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 DYMAX Technical Representatives at (860) 482-1010.

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. Product has a one-year shelf life when stored below 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.

NOTES

[1] Use of lamps that emit high levels of shortwave light (for example, more than 15% 200-300 nanometer UV light) are not recommended.

[2] Nominal intensity taken at a predetermined distance. This reading does not reflect the maximum intensity capabilities emitted from each unit.

2005 DYMAX Corporation

The data contained in this bulletin 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's 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 bulletin shall act as a representation that the product use or application will not infringe a patent owned by someone other than DYMAX or act as a grant of a 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 contained in this bulletin as a general guide.

DYMAX Corporation - 51 Greenwood's Road - Torrington, CT 06790 - Phone: 860-482-1010 - Fax: 860-496-0608
E-mail: info@dymax.com - www.dymax.com

DYMAX Europe GmbH - Trakehner Strasse 3 - D-60487 Frankfurt am Main - Germany - Phone: (49) 69-7165-3568
Fax: (49) 69-7165-3830 - E-mail: dymaxinfo@dymax.de - www.dymax.de

DYMAX®, Light-Weld®, Light-Welder®, Multi-Cure®, Ultra Light-Weld®, MEDI-CURE® and MD® are trademarks of DYMAX Corporation

