

Light Weld[®] 429-T, 429-GEL High-Impact, Optically Clear Structural Adhesive for Large Areas

DESCRIPTION

DYMAX Light Weld[®] 429-T and 429-GEL adhesives form optically clear, high-performance structural bonds to both metal and glass in seconds upon exposure to long wave UV light. Light Weld[®] 429 Series adhesives are excellent for potting, sealing, and bonding. Bonds resist yellowing, vibration, impact, and thermal shock. This product is in full compliance with the RoHS Directives 2002/95/EC and 2003/11EC.

UNCURED PROPERTIES

Solvent Content	None	
Composition	100% Solids	
Appearance	Clear/Straw	
Solubility	Isopropyl Alcohol	
Toxicity	Low	
Flash Point	>95°C (200°F)	
Viscosity 429-T	5,000 cP (nominal)	ASTM D-1084
429-Gel	20,000 cP (nominal)	ASTM D-2556

CURED PROPERTIES

PHYSICAL

Durometer Hardness	D60	ASTM D-2240
Elongation at Break	120%	ASTM D-638
Tensile at Break	3,000 psi	ASTM D-638
Modulus of Elasticity	35,000 psi	ASTM D-638
Thermal Limit (brittle/degrades)	-55° to 200°C	DSTM D-200*
Tensile Compression Shear		
Glass-to-Glass	2,300 psi (glass shatters)	DSTM D-250*
Glass-to-Steel	1,700 psi (glass shatters)	DSTM D-251*
Water Absorption (24 h)	1.2%	ASTM D-570
Boiling Water Absorption (2 h)	3.2%	ASTM D-570
Refractive Index	1.50	ASTM D-1218

*DSTM refers to DYMAX Standard Test Method



DYMAX Corporation - 318 Industrial Lane - 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 (0) 69 / 7165-3568 - Fax: +49 (0) 69 / 7165-3830 - E-mail: dymaxinfo@dymax.de - www.dymax.de

DYMAX UV Adhesives & Equipment (Shenzhen) Ltd - Unit 807, Talfook Building, No. 9 Shi Hua Road, Futian Free Trade Zone, Shenzhen, China 518038 - Phone: +86.755.83485759 - Fax: +86.755.83485760 - E-mail: dymaxasia@dymax.com - www.dymax.com.cn

DYMAX Asia (HK) - Unit 1006, 10/F., Carnarvon Plaza, No. 20, Carnarvon Road, T.S.T., Kowloon, Hong Kong - Phone: +852.2460.7038 - Fax: +852.2460.7017 - E-mail: dymaxasia@dymax.com - www.dymax.com.cn

DYMAX Korea LLC - #903, CCMM B/D, 12 Yeoido-Dong, Youngdungpo-Gu, Seoul, Korea, 150-869 - Phone: 82-2-784-3434 - Fax: 82-2-784-5775 - E-mail: info@dymax.kr - www.dymax.co.kr

CURE DATAUV Light - using 365 nm wavelength UV light ^[1]:

	Cure Time (seconds)	Intensity ^[2] mW/cm ²	DYMAX Light-Welder [®] Lamps
Fixture between glass slides	>1	20	2000-EC
Nominal cure depth (0.25 inch)	60	20	2000-EC
Tack-free cure time	20	150	5000-EC
	2	2,500	3010-EC

DISPENSING AND HANDLING ADHESIVE

DYMAX 429-T and 429-GEL 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 Applications 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 minimum 12-month shelf life from date of shipment, unless otherwise specified, when stored below 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 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.

© 2003-2010 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. 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 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. Technical Data Collection Prior to 2003 Rev. 10/18/2010

DYMAX Corporation - 318 Industrial Lane - 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 (0) 69 / 7165-3568 - Fax: +49 (0) 69 / 7165-3830 - E-mail: dymaxinfo@dymax.de - www.dymax.de

DYMAX UV Adhesives & Equipment (Shenzhen) Ltd - Unit 807, Talfook Building, No. 9 Shi Hua Road, Futian Free Trade Zone, Shenzhen, China 518038 - Phone: +86.755.83485759 - Fax: +86.755.83485760 - E-mail: dymaxasia@dymax.com - www.dymax.com.cn

DYMAX Asia (HK) - Unit 1006, 10/F., Carnarvon Plaza, No. 20, Carnarvon Road, T.S.T., Kowloon, Hong Kong - Phone: +852.2460.7038 - Fax: +852.2460.7017 - E-mail: dymaxasia@dymax.com - www.dymax.com.cn

DYMAX Korea LLC - #903, CCMM B/D, 12 Yeoido-Dong, Youngdungpo-Gu, Seoul, Korea, 150-869 - Phone: 82-2-784-3434 - Fax: 82-2-784-5775 - E-mail: info@dymax.kr - www.dymax.co.kr