

OPTICALLY CLEAR STRUCTURAL ADHESIVE FOR LARGE AREAS, HIGH IMPACT LIGHT WELD® 429 SERIES

DESCRIPTION

Dymax Light Weld® 429 forms optically clear, high performance structural bonds to both metal and to glass in seconds upon exposure to long wave UV light. Light Weld 429 is excellent for potting, sealing and bonding. Bonds resist yellowing, vibration, impact and thermal shock.

UNCURED PROPERTIES

Solvent Content	None	
Composition	100% Solids	
Appearance	Clear/Straw	
Solubility	Isopropyl Alcohol	
Toxicity	Low	
Flash Point	>95°C (200°F)	
Viscosity 429	2,500 cP (nominal)	ASTM D-1084
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

PRODUCT DATA SHEET

429 Series, 5/01/2003

CURE DATA

UV 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 is available in various packages such as syringes, cartridges, bottles, and pails. It 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 the Dymax Technical Center 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 32°C (90°F) in the original, unopened container. Refrigerated storage extends shelf life.

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 Dymax Corporation
MD® Medical Device Adhesives is also a registered trademark of 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 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: 0049-69-7165-3568
Fax: 0049-69-7185-3830 - E-mail: dymaxinfo@dymax.de

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

