

Light Weld® 429-T, 429-GEL

High-Impact, Optically Clear Structural Adhesive for Large Areas

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 RoHS directives 2015/863/EU.

UNCURED PROPERTIES

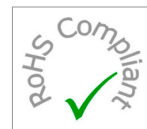
Solvent Content	None	
Composition	100% Solids	
Appearance	Clear/Straw	
Solubility	Isopropyl Alcohol	
Flash Point	>95°C (200°F)	
Viscosity 429-T	5,000 cP (nominal)	ASTM D-1084
429-Gel	20,000 cP (nominal)	ASTM D-2556

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



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Technical Data Collection Prior to 2003

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CURE DATA

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

	Cure Time (seconds)	Intensity ^[2] mW/cm ²	Dymax 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 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 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 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.

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.

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429-T, 429-GEL Product Data Sheet

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