

LOW STRESS SEALANT ULTRA LIGHT-WELD® 3089-T and 3089-Gel

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. The adhesives are ideally suited for sealant / gasketing applications or other applications where flexible bonds are required.

DESCRIPTION

Ultra Light-Weld 3089-T and 3089-Gel are very fast curing, flexible form-in-place UV curable materials. They form resilient bonds to metal, glass, and a wide variety of plastics exhibiting high flexibility to minimize or eliminate bond line stresses. 3089-T and 3089-Gel exhibit excellent adhesion to electroplated and electroless nickel coatings, polyesters, and a variety of other plastics, glass and metal.

TYPICAL UNCURED PROPERTIES

Solvent Content	None - 100% solids	
Composition	Urethane Oligomer (Meth) Acrylate Monomer Blends	
Appearance	Clear/Straw Liquid	
Solubility	Alcohols/Chlorinated Solvents/Ketones	
Toxicity	Low	
Flash Point	>93°C (200°F)	
Viscosity (@ 20 rpm)	3089-T 7500 cP (nominal)	ASTM D-2556
	3089-Gel 25,000 cP (nominal)	ASTM D-2556

TYPICAL CURED PROPERTIES

<i>PHYSICAL</i>		
Durometer Hardness	A 75	ASTM D-2240
Elongation at Break	225%	ASTM D-638
Tensile at Break	300 psi	ASTM D-638
Modulus of Elasticity	475 psi	ASTM D-638
Water Absorption	0.5%	ASTM D-570
Thermal Limit (brittle/degrades)	-55° to 150°C (-60°/+300°F)	
Linear Shrinkage	1.9%	

TYPICAL CURE DATA - Using 365 nanometer UV light ^[1]:

	Cure Time (seconds)	Intensity ^[2] mW/cm ²	Dymax Light-Welder® Lamps
Fixture between glass slides	1	50	2000-EC
Nominal cure depth (0.25 inch)	60	50	2000-EC
Tack free cure	40	150	5000-EC

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PRODUCT DATA SHEET

3089-T & 3089-GEL, 06/99

DISPENSING AND HANDLING ADHESIVE

Dymax 3089-T and 3089-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 Technical Representatives.

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 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. 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 product Material Safety Data Sheet.

NOTES

- [1] Do not recommend lamps that emit high levels of shortwave light (for example, more than 15% 200-300 nanometer UV light).
- [2] Nominal intensity taken at a pre-determined distance. This reading does not reflect the maximum intensity capabilities emitted from each unit.

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