

Ultra Light-Weld® 3089-GEL Low-Stress Bonding/Laminating Adhesive

Ultra Light-Weld® 3089-GEL structural adhesive can be cured with UV or visible light. Dymax Ultra Light-Weld® materials contain no nonreactive solvents and cure upon exposure to light. Their ability to cure in seconds enables faster processing, greater output, and lower processing costs. When cured with Dymax light-curing spot lamps, focused-beam lamps, or flood lamps, these adhesives provide optimum process flexibility. Dymax lamps offer the optimum balance of UV and visible light for the fastest, deepest cures. This product is in full compliance with RoHS directives 2015/863/EU.

DESCRIPTION

Ultra Light-Weld® 3089 adhesive is very fast-curing and flexible. It forms resilient bonds to metal, glass, and a wide variety of plastics exhibiting high flexibility to minimize or eliminate bond-line stresses. 3089 exhibits adhesion to Mylar polyester, electroplated and electroless nickel coatings, as well as a variety of other plastics, glass, and metal. It is suitable for sealant/gasketing applications as well as low-stress bonding and laminating.

TYPICAL UNCURED PROPERTIES (not specifications)

Solvent Content	None - 100% solids	
Composition	Urethane Oligomer (Meth) Acrylate Monomer Blends	
Appearance	Clear/Straw Liquid	
Solubility	Alcohols/Chlorinated Solvents/Ketones	
Flash Point	>93°C (200°F)	
Viscosity	25,000 cP (nominal)	ASTM D-1084

TYPICAL CURED PROPERTIES (not specifications)

PHYSICAL

Durometer Hardness	A65	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
Refractive Index	1.492	ASTM D-1218
Water Absorption	3.6%	ASTM D-570
Linear Shrinkage	1.9%	ASTM D-2556



UV LIGHT-CURE DATA

Using 365 nanometer UV light ^[1]:

	Cure Time (seconds)	Intensity ^[2] mW/cm ²	Dymax Lamps
Fixture Between Glass Slides	1	50	2000-EC
Nominal Cure Depth (0.250 inch)	60	50	2000-EC
Tack-Free Cure	40	150	5000-EC

DISPENSING AND HANDLING ADHESIVE

This material may be dispensed with a variety of manual and automatic applicators or other equipment as required. Questions relating to dispensing and curing systems for specific applications should be referred 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 the material in a cool, dark place when not in use. Do not expose to light. This product may polymerize upon prolonged exposure to ambient and artificial light. Keep covered when not in use. This material has an 18-month shelf life from date of manufacture, unless otherwise specified, when stored between 10°C (50°F) and 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 product 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.

Numerous factors—including, without limitation, transport, storage, processing, the material with which the product is used, and the ultimate function or purpose for which the product was obtained—may affect the product's performance and/or may cause the product's actual behavior to deviate from its behavior in the laboratory. None of these factors are within Dymax's control. Conclusions about the behavior of the product under the user's particular conditions, and the product's suitability for a specific purpose, cannot be drawn from the information contained in this document.

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