Ultra Light-Weld® 3089 Series
Low-Stress Bonding/Laminating Adhesives

INTRODUCTION

DYMAX Ultra Light-Weld® structural adhesives 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 the RoHS Directives 2002/95/EC and 2003/11/EC.

DESCRIPTION

Ultra Light-Weld® 3089 Series adhesives are very fast-curing and flexible. They form resilient bonds to metal, glass, and a wide variety of plastics exhibiting high flexibility to minimize or eliminate bond-line stresses. 3089 Series adhesives exhibit adhesion to Mylar polyester, electroplated and electroless nickel coatings, as well as a variety of other plastics, glass, and metal. They are 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	3089	1,200 cP (nominal)	ASTM D-1084
	3089-GEL	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
Thermal Limit (brittle/degrades)	-55° to 150°C (-60°/+300°F)	DSTM D-200*
Linear Shrinkage	1.9%	ASTM D-2556

*DSTM refers to DYMAX Standard Test Method

DYMAX Corporation
860.482.1010
info@DYMAX.com
www.DYMAX.com

DYMAX Europe GmbH
+49 (0) 611.962.7900
info_de@DYMAX.com
www.DYMAX.de

DYMAX UV Adhesives & Equipment (Shenzhen) Co Ltd
+86.755.83485759
DYMAXasia@DYMAX.com www.DYMAX.com.cn

DYMAX Asia (Hong Kong) Ltd
+852.2460.7038
DYMAXasia@DYMAX.com
www.DYMAX.com.cn

DYMAX Korea LLC
82.2.784.3434
info@DYMAX.kr
www.DYMAX.co.kr

UV LIGHT-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 (0.250 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 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 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 a minimum 12-month shelf life from date of shipment, 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.

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 pre-determined distance. This reading does not reflect the maximum intensity capabilities emitted from each unit.