

May 4, 2006

### LOW STRESS PLASTICS BONDERS ACRYLIC • STYRENE • POLYCARBONATE ULTRA LIGHT-WELD® 3094 SERIES

#### INTRODUCTION

Dymax Ultra Light-Weld® 3094 Series adhesives can be cured with UV or visible light. Ultra Light-Weld adhesives increase productivity, lower assembly costs and enhance 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.

#### DESCRIPTION

Ultra Light-Weld 3094 Series adhesives provide rapid bonding and sealing to ABS, polyacrylics, polycarbonate, polyurethane, styrene, and other plastic substrates. Solvent free, visible and/or UV curing adhesives, 3094-Series adhesives dispense easily and cure quickly for precise quantity and placement of adhesive. Bonds generally exceed the strength of substrates bonded, including PVC alloys, which resist most other bonding methods. 3094-Gel-F will fluoresce under a standard black light for visual inspection and in-line quality control.

#### TYPICAL UNCURED PROPERTIES (not specifications)

Solvent Content	None - 100% Reactive Solids	
Chemical Class	Urethane (Meth) Acrylate	
Appearance	Clear	
Solubility	Alcohols/Chlorinated Solvents/Ketones	
Toxicity	Low	
Flash Point	>95°C (200°F)	
Viscosity (20 rpm) 3094	1,000 cP (nominal)	ASTM D-2556
3094-T	8,000 cP (nominal)	ASTM D-2556
3094-Gel	25,000 cP (nominal)	ASTM D-2556
3094-Gel-F	25,000 cP (nominal)	ASTM D-2556

#### TYPICAL CURED PROPERTIES (not specifications)

##### *PHYSICAL*

Durometer Hardness	D60	ASTM D-2240
Elongation at Break	300%	ASTM D-638
Tensile at Break	5,300 psi	ASTM D-638
Modulus of Elasticity	21,000 psi	ASTM D-638
Water Absorption (24 h)	20%	ASTM D-570
Boiling Water Absorption (2 h)	8%	ASTM D-570
Thermal Limit (brittle/degrades)	-55° to 180°C (-65°/+350°F)	DSTM D-200*
Linear Shrinkage	1.2%	ASTM D-2566

\*DSTM refers to Dymax Standard Test Method

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# DYMAX CORPORATION

## PRODUCT DATA SHEET

3094 Series, May 4, 2006

### TYPICAL CURE DATA

Lamp	2000-EC	5000-EC	PC-3	3010-EC
Light Type	UV	UV	UV	UV
Lamp Type	Flood	Flood	Spot	Spot
Intensity (mW/cm <sup>2</sup> ) at Peak Wavelength	50 @ 365 nm	150 @ 365 nm	1000 @ 365 nm	1800 @ 365 nm
Wavelength (nm) Working Range	300-500	300-500	300-500	300-500
Cure Speed (seconds)				
Between Glass	1	1	1	1
1/8" Bead	7	3	6	7
Cure Depth in 1 Minute (inch)	3/16	9/16	1/8	3/16

### DISPENSING AND HANDLING ADHESIVE

Ultra Light-Weld 3094 Series adhesives 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 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.

### 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's Material Safety Data Sheet.

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