

### STRUCTURAL PLASTIC BONDER POLYCARBONATE • PVC • POLYSULFONE Ultra Light-Weld® 3093 Series

#### 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.

#### DESCRIPTION

Recommended especially for polycarbonate, Ultra Light-Weld 3093 Series UV plastic bonders cure in seconds upon exposure to longwave (365 nm) UV light. Tough, environmentally resistant bonds are formed between polycarbonate and a variety of other plastic substrates. Bonds combine flexibility with tensile strength and resistance to thermal shock. Ultra Light-Weld 3093 Series UV adhesives are available in a range of viscosities to suit most applications.

#### TYPICAL UNCURED PROPERTIES (not specifications)

Solvent Content	None - 100% Reactive Solids	
Chemical Class	Urethane (Meth) Acrylate	
Appearance	Clear/Light Amber Liquid	
Solubility	Alcohol/Chlorinated Solvents/Ketones	
Toxicity	Low	
Refractive Index	1.49 (20°C)	
Density	1.10 g/mL	
Flash Point	95°C (200°F)	
Viscosity	3093	3,100 cP (nominal) ASTM D-1084
	3093-T	15,000 cP (nominal) ASTM D-2556
	3093-Gel	30,000 cP (nominal) ASTM D-2556

#### TYPICAL CURED PROPERTIES (not specifications)

##### *PHYSICAL*

Durometer Hardness	D80	ASTM D-2240
Tensile at Break	9,500 psi	ASTM D-638
Elongation at Break	5%	ASTM D-638
Modulus of Elasticity	500,000 psi	ASTM D-638
Thermal Limit (brittle/degrades)	-55° to 180°C (-65° to +350°F)	DSTM D-200*
Coefficient of Thermal Expansion	65.0 x 10 <sup>-6</sup> /°C	ASTM D-696
Water Absorption (24 h)	2.6%	ASTM D-570
Boiling Water Absorption (2 h)	4.0%	ASTM D-570
Linear Shrinkage	2.6%	ASTM D-2566

\*DSTM refers to Dymax Standard Test Method

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