

### Ultra Light-Weld® 3083 Adhesives Series for R-PET & PET Clamshell Bonding In Seconds

- Lowers clamshell costs
- Automated Assembly
- Manual Assembly

#### DESCRIPTION

Ultra Light-Weld 3083 Series is solvent free, UV-curable adhesive, specifically designed for bonding or sealing R-PET & PET clamshell packages. Bond strength on R-PET & PET usually exceeds the strength of the substrate. Dispensing and UV curing line speeds of 50 feet/minute are possible.

#### TYPICAL UNCURED PROPERTIES (not specifications)

Solvent Content		None - 100% Reactive Solids	
Chemical Class		Urethane (Meth) Acrylate	
Appearance		Light straw, clear, liquid	
Solubility		Alcohols/Chlorinated Solvents/Ketones	
Toxicity		Low	
Flash Point		>95°C (200°F)	
Viscosity (20 rpm)	3083	550 cP (nominal)	ASTM D-1084
	3083-T	3500 cP (nominal)	ASTM D-2556

#### TYPICAL CURED PROPERTIES (not specifications)

##### *PHYSICAL*

Peel Strength (RPET)	26 lb/in (465 g/mm)	ASTM D-903
Durometer Hardness	A65	ASTM D-2240
Elongation at Break	200%	ASTM D-638
Modulus of Elasticity	2,500 psi	ASTM D-638
Water Absorption (24 h)	12.3%	ASTM D-570
Boiling Water Absorption (2 h)	10.6%	ASTM D-570
Thermal Limit (brittle/degrades)	-55° to 180°C (-65°/+350°F)	DSTM D-200*
Linear Shrinkage	1%	ASTM D-2566

\*DSTM refers to DYMAX Standard Test Method

### TYPICAL CURE DATA

Lamp	2000-EC	5000-EC
Light Type Lamp Type	UV Flood	UV Flood
Intensity (mW/cm <sup>2</sup> ) at Peak Wavelength	50 @ 365 nm	200 @ 365 nm
Wavelength (nm) Working Range	300-500	300-500
Cure Speed (seconds) Between Glass	<1*	<1*

\*Cure speed can significantly slow down if the grade of PET or RPET is UV blocked. Unblocked PET grades will yield the fastest clamshell sealing operation.

### DISPENSING AND HANDLING ADHESIVE

Ultra Light-Weld 3083 Series adhesives are available in various packages such as syringes, cartridges, bottles, and pails. It may be dispensed with a variety of automatic bench-top syringe applicators or other equipment, such as roll coaters, 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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