

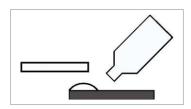
# **Guidelines for UV Curing**

## Adhesives, Sealants, and Coatings

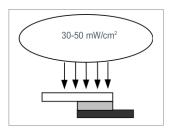
The speed, ease of use, and cost efficiency of Dymax Light Weld®, Ultra Light-Weld®, and Multi-Cure® UV light-curable adhesives, sealants, and coatings can be easily achieved with proper application and curing procedures. All *Light Weld* resins must be completely exposed to UV light in order to cure.

#### **BONDING - Where at Least One Surface Transmits UV Light**

#### . Apply adhesive drop or bead to one surface.



 Join surfaces to insure optimum surface-to-surface contact. Upon assembly, the adhesive should spread to fill the joint.

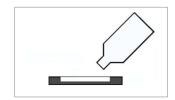


**Cure the bonded joint** using the proper ultraviolet light for five to ten seconds.

Recommended Lamp: Dymax 2000-EC flood lamp

#### POTTING, SEALING and COATING

1. Apply adhesive to the work piece.

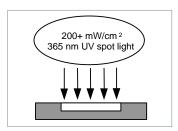


Potting



Spray Coating

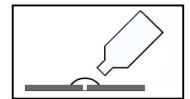
 Cure under 365 nm (nanometer) UV light with an intensity of at least 200+ mW/cm² for two to thirty seconds.



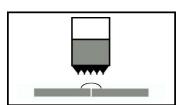
**Recommended Lamps:** Dymax 5000-EC floodlight, 1200-EC focused beam light, or use a high-intensity electrodeless lamp. See page 2 for curing lamps.

#### **TACKING (Spot Cures)**

 Apply adhesive accurately, taking care to ensure a correct drop size.



Cure under proper UV spot light source for 10 to 25 seconds.



Recommended Lamps: Dymax BlueWave® 200

### **Adhesive Cure Rates with Dymax UV Light-Curing Lamps**

Lamp/Type	2000-EC Moderate Intensity UV Flood	<b>5000-EC</b> Higher Intensity UV Flood	BlueWave® 200 High Intensity Spot Lamp	Conveyorized Beam 1200-EC x 2 High Intensity	Conveyorized Electrodeless Lamps
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Spectral Output of Lamps (nanometers)	250 – 600**	250 – 600**	250 – 600	250 – 600**	250 – 600**
Nominal Intensity (mW/cm²)	20 – 60	100 – 200	20,000	200 – 275	1,700 – 2,000
TYPICAL ADHESIVE CURE RATE					
Ultra Light-Weld® (UV/Visible cure adhesive)					
Between Surface Cures (glass)	1 – 4 seconds	1 – 3 seconds	1 second	10 – 25 feet/minute	10 – 25 feet/minute
On Surface Cures*	40 – 240 seconds	10 – 40 seconds	1 – 5 seconds	1 – 10 feet/minute	3 – 10 feet/minute
Multi-Cure® and Light Weld® (UV cure adhesive)					
Between Surface Cures (glass)	2 – 6 seconds	1 – 4 seconds	2 seconds	5 – 25 feet/minute	10 – 25 feet/minute
On Surface Cures	30 - 600 seconds	20 – 50 seconds	1 – 5 seconds	1 – 5 feet/minute	1 – 10 feet/minute

Ranges represent the fastest and slowest cure times of Dymax formulations under stated lamps.

#### REMEMBER TO NEVER EXPOSE SKIN OR EYES TO ULTRAVIOLET LIGHT.



<sup>\*</sup> Bulbs with different spectral distributions available.

<sup>\*\*</sup> Some formulations never achieve a dry surface cure, though most do. The time range stated represents the fastest to the slowest curing products.