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

1. Apply adhesive drop or bead to one surface.

2. 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.

2. 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)

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

2. 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

<table>
<thead>
<tr>
<th>Lamp/Type</th>
<th>2000-EC Moderate Intensity UV Flood</th>
<th>5000-EC Higher Intensity UV Flood</th>
<th>BlueWave® 200 High Intensity Spot Lamp</th>
<th>ConveyORIZED Beam 1200-EC x 2 High Intensity</th>
<th>ConveyORIZED Electrodeless Lamps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectral Output of Lamps (nanometers)</td>
<td>250 – 600**</td>
<td>250 – 600**</td>
<td>250 – 600</td>
<td>250 – 600**</td>
<td>250 – 600**</td>
</tr>
<tr>
<td>Nominal Intensity (mW/cm²)</td>
<td>20 – 60</td>
<td>100 – 200</td>
<td>20,000</td>
<td>200 – 275</td>
<td>1,700 – 2,000</td>
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</tbody>
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### TYPICAL ADHESIVE CURE RATE

#### Ultra Light-Weld® (UV/Visible cure adhesive)

<table>
<thead>
<tr>
<th></th>
<th>Between Surface Cures (glass)</th>
<th>On Surface Cures*</th>
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<tbody>
<tr>
<td></td>
<td>1 – 4 seconds</td>
<td>10 – 40 seconds</td>
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#### Multi-Cure® and Light Weld® (UV cure adhesive)

<table>
<thead>
<tr>
<th></th>
<th>Between Surface Cures (glass)</th>
<th>On Surface Cures</th>
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<tbody>
<tr>
<td></td>
<td>2 – 6 seconds</td>
<td>20 – 50 seconds</td>
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</table>

Ranges represent the fastest and slowest cure times of Dymax formulations under stated lamps.  
* Bulbs with different spectral distributions available.  
** Some formulations never achieve a dry surface cure, though most do. The time range stated represents the fastest to the slowest curing products.  

REMEMBER TO NEVER EXPOSE SKIN OR EYES TO ULTRAVIOLET LIGHT.