

## Light Weld® 4-20577 One-Part UV Curing Dome Coating

Dymax Light Weld® 4-20577 is a clear, flexible dome coating that cures in seconds upon exposure to long wave (365 nm) UV light. The coating has a high dome profile. Light-Weld® 4-20577 was designed to adhere to polyester labels. QUV tests suggest that 4-20577 may be suitable for most indoor and some outdoor applications. Users should thoroughly test 4-20577 for suitability in their application. Dymax 4-20577 is best suited to coating decals less than 1.5" (4 cm) long. This product is in full compliance with RoHS directives 2015/863/EU.

Applications	<ul style="list-style-type: none"> <li>- Dome Coating for Small and Medium Sized Polyester Labels</li> <li>- Clear Soft, Flexible, High Dome Profile</li> <li>- Scratch Resistant, Springs Back When Dented</li> <li>- Suitable for Indoor and Some Outdoor Applications</li> </ul>
Benefits Over 2-Part Urethanes	<ul style="list-style-type: none"> <li>- Greater Productivity, Cures In Seconds</li> <li>- Fewer Rejects, Lower Costs</li> <li>- Faster Order Fulfillment Cycle, Shorter JIT Cycle</li> <li>- 100% Automation Has Been Achieved (Dispense, Cure, Inspect, &amp; Package)</li> <li>- Regain Floor Space, Eliminate Racks, Ovens, and Shuffling Parts</li> <li>- No Two-Part Resin Waste or Disposal Costs</li> <li>- Mercury-Free and Isocyanate-Free</li> </ul>

### **TYPICAL UNCURED PROPERTIES (not specifications)**

Solvent Content	None, 100% Reactive Solids	
Composition	Urethane Acrylate\Acrylate Blend	
Appearance	Clear	
Solubility	Isopropyl Alcohol, Ketones, and Chlorinated Solvents	
Toxicity	Low	
Flash Point	>95°C (200°F)	
Viscosity (@ 20 rpm)	1,500 cP (nominal)	ASTM D-1084

### **TYPICAL CURED PROPERTIES (not specifications)**

Durometer Hardness	A70	ASTM D-2240
Water Absorption (24 hr)	0.6%	ASTM D-570

### **STARTING POINT CURE SCHEDULE**

The larger and more flexible the substrate, the more work it takes to optimize the cure cycle to produce a clear dome with no warpage. Higher intensity lamps may cure the surfaces faster but when used alone they may warp flexible substrates.

Substrate	Preconditioning Lamp	Dymax Lamp
<b>Rigid Substrates:</b> Metal, glass, wood, or plastic	Unnecessary unless substrate warps on cure	30 seconds, stationary lamp, 5000-EC or 12 ft/min, UVC6/12002 conveyor or 10 ft/min, UVC6/F300 conveyor
<b>Flexible Substrates:</b> Decals, labels, foils, polyester	4 minutes @ 0.5-2.0 mW/cm <sup>2</sup> 365 nm blacklight	10-15 seconds 2000-EC <sup>†</sup> 10 ft/min, UVC6/F300 conveyor

<sup>†</sup> Order optional bulb (P/N 36970) with 2000-EC (Flood lamp with 8" x 8" cure area)

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**Dymax Corporation**  
+1.860.482.1010 | info@dymax.com | [www.dymax.com](http://www.dymax.com)

**Dymax Europe GmbH**  
+49 611.962.7900 | info\_de@dymax.com | [www.dymax.de](http://www.dymax.de)

**Dymax Engineering Adhesives Ireland Ltd.**  
+353 21.237.3016 | info\_ie@dymax.com | [www.dymax.ie](http://www.dymax.ie)

**Dymax Oligomers & Coatings**  
+1.860.626.7006 | info\_oc@dymax.com | [www.dymax-oc.com](http://www.dymax-oc.com)

**Dymax UV Adhesives & Equipment (Shanghai) Co. Ltd.**  
+86.21.37285759 | dymaxasia@dymax.com | [www.dymax.com.cn](http://www.dymax.com.cn)

**Dymax UV Adhesives & Equipment (Shenzhen) Co. Ltd.**  
+86.755.83485759 | dymaxasia@dymax.com | [www.dymax.com.cn](http://www.dymax.com.cn)

**Dymax Asia (H.K.) Limited**  
+852.2460.7038 | dymaxasia@dymax.com | [www.dymax.com.cn](http://www.dymax.com.cn)

**Dymax Asia Pacific Pte. Ltd.**  
+65.6752.2887 | info\_ap@dymax.com | [www.dymax-ap.com](http://www.dymax-ap.com)

**Dymax Korea LLC**  
+82.2.784.3434 | info\_kr@dymax.com | [www.dymax.com/kr](http://www.dymax.com/kr)

**DISPENSING AND HANDLING ADHESIVE**

Dymax 4-20577 is available in various packages such as syringes, cartridges, bottles, and pails. It may be dispensed with a variety of automatic bench-top applicators or other equipment as required. Please direct any questions relating to dispensing and curing systems for specific applications to Dymax Application Engineering.

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. This material has an 18-month shelf life from date of manufacture, unless otherwise specified, when stored between 10°C (50°F) and 35°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 Material Safety Data Sheet.

**GENERAL INFORMATION**

This product is intended for industrial use only. Keep out of the reach of children. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wear impervious gloves. Repeated or continuous skin contact with uncured material may cause irritation. Remove material from skin with soap and water. Never use organic solvents to remove material from skin and eyes. For more information on the safe handling of this material, please refer to the Safety Data Sheet before use.

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