

ONE-PART UV CURING DOME COATING Light Weld® 4-20577

DESCRIPTION

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.

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

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 Light-Welder® Lamp
Rigid Substrates: 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
Flexible Substrates: Decals, Labels Foil, polyester	4 minutes @ 0.5-2.0 mW/cm ² 365 nm blacklight	10-15 seconds 2000-EC [†] 10 ft/min, UVC6/F300 conveyor

[†] Order optional bulb (P/N 36970) with 2000-EC (Flood lamp with 8"x8" cure area)

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. 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 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.

© 2002 Dymax Corporation

The data contained in this bulletin is of a general nature and is based on laboratory test conditions. Dymax does not warrant the data contained in this bulletin. Any warranty applicable to the product, its application and use is strictly limited to that contained in Dymax's standard Conditions of Sale. Dymax does not assume responsibility for test or performance results obtained by users. It is the user's responsibility to determine the suitability for the product application and purposes and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this bulletin shall act as a representation that the product use or application will not infringe a patent owned by someone other than Dymax or act as a grant of a license under any Dymax Corporation Patent. Dymax recommends that each user adequately test its proposed use and application before actual repetitive use, using the data contained in this bulletin as a general guide.

DYMAX Corporation - 51 Greenwoods Road - Torrington, CT 06790 - Phone: 860-482-1010 - Fax: 860-496-0608
E-mail: info@dymax.com - www.dymax.com

DYMAX Europe GmbH - Trakehner Strasse 3 - D-60487 Frankfurt am Main - Germany - Phone: (49) 69-7165-3568
Fax: (49) 69-7185-3830 - E-mail: dymaxinfo@dymax.de



DYMAX®, Light-Weld®, Light-Welder®, Multi-Cure®, Ultra Light-Weld®, *MEDI-CURE*® and MD® are trademarks of DYMAX Corporation