



**Manufacturer:**  
Dymax®

**Product Name:**  
Dymax OP-29V UV Optical Adhesive (3ml)

**Manufacturer Part Number:**  
OP-29V-3ML

▶ [Click here for more details on the Dymax OP-29V UV Optical Adhesive \(3ml\)](#)



**OPTICAL ADHESIVES**  
**OP-29V Product Data Sheet**

**OP-29V**  
**Multipurpose Optical Adhesive**

Dymax high-performance optical adhesives cure upon exposure to light in seconds. OP-29V adhesive is sensitive to UV/Visible light. Because of its solvent-free and rapid-cure features, it increases productivity, lowers assembly cost, and enhances worker safety. When cured with Dymax spot, beam, or flood lamps, it delivers optimum speed and performance for a variety of optical applications. This product is in full compliance with RoHS directives 2015/863/EU.

**SUBSTRATES BONDED:** Glass • Metal • Plastics  
**FEATURES:** Resilient • Optically Clear • Low Stress • Resists Yellowing, Thermal Shock, Vibration, and Impact  
**APPLICATIONS:** Laminations • Tacking • Bonding • Potting • Sealing • Ideal for Large or Small Areas

**TYPICAL UNCURED PROPERTIES (not specifications)**

Solvent Content	None - 100% Solids	
Composition	Urethane (Meth) Acrylate	
Appearance	Clear	
Solubility	Isopropyl Alcohol Chlorinated Solvents Ketones	
Viscosity (20 rpm)	2,500 cP (nominal)	ASTM D-1084

**TYPICAL CURED PROPERTIES (not specifications)**

<b>PHYSICAL</b>		
Linear Shrinkage	2.8%	ASTM D-2566
Durometer Hardness	D60	ASTM D-2240
Elongation at Break	120%	ASTM D-638
Modulus of Elasticity	35,000 psi	ASTM D-638
Tensile at Break	3,000 psi	ASTM D-638
Tensile Compression Shear	Glass-to-Glass: 2,300 psi (exceeds glass strength)	DSTM D-250*
	Glass-to-Steel: 1,700 psi (exceeds glass strength)	DSTM D-251*
Boiling Water Absorption (2 h)	3.2%	ASTM D-570
Water Absorption (24 h)	1.2%	ASTM D-570

\*DSTM refers to Dymax Standard Test Method

**RECOMMENDED CURING SYSTEMS**

Lamp	5000-EC	BlueWave® 200	UVC-6/Fusion F-300
Light Type	UV/Visible	UV/Visible	UV/Visible
Lamp Type	5" x 5" Flood	3/16" Spot	1" x 6" Focused Beam
Maximum Lamp Intensity @ 365 nm	300 mW/cm <sup>2</sup>	20,000 mW/cm <sup>2</sup>	8,000+ mW/cm <sup>2</sup>
Intensity @ Time of Test @ 365 nm	150 mW/cm <sup>2</sup>	3,750 mW/cm <sup>2</sup>	4,000 mW/cm <sup>2</sup>
Adhesive Absorption Range (nm)	300-500	300-500	300-500
Equipment Output Range (nm)	300-500	300-500	300-500
Cure Speed (Sec)			
Fixture Between Glass Slides	2	4	<1
Tack-Free Surface Cure	7	5	<1
Nominal Cure Depth (0.125")	1	5	1
Cure Depth In 1 Minute (inch)	0.75	0.75	1.0

The required intensity and cure time should be determined during the initial process validation stage. Factors that should be considered during process validation which can affect the adhesive cure rate and depth of cure include, but are not limited to, the part geometry, bond-gap size, percent light transmission through the substrate at 365 nm and 436 nm, distance from the light source to the adhesive bond area, UV and visible light intensity and spectral output of the light source, the desired margin of safety to be built into the process, and minimum and maximum exposure times.



**Contact the professionals at Fiber Optic Center for a quote or to get more details.**

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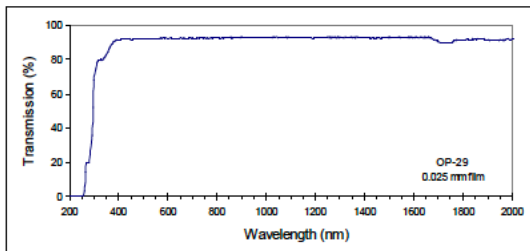
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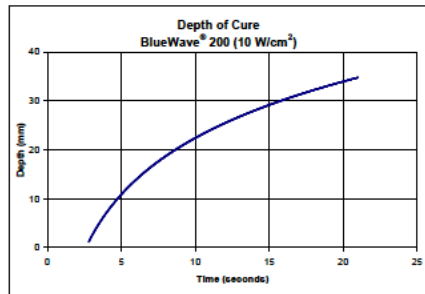
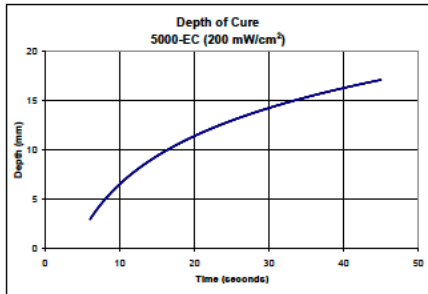
**OPTICAL PROPERTIES**

Refractive Index (25°C) Uncured	1.477	ASTM D-1218
Refractive Index (25°C) Cured	1.504	ASTM D-1218



**DEPTH OF CURE**

The graphs below show the increase in depth of cure as a function of exposure time with two different lamps at different intensities. A 9.5 mm [0.37 in] diameter specimen was cured in a polypropylene mold and cooled to room temperature. It was then released from the mold and the cure depth was measured.



**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.

**DISPENSING AND HANDLING ADHESIVES**

This material may be dispensed with a variety of manual and automatic applicators or other equipment as required.

**SAFETY**

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.

**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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**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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