



Manufacturer:
Dymax®

Product Name:
Dymax OP-60 Optical Positioning UV Adhesive (3ml)

Manufacturer Part Number:
OP-60-3ML

▶ [Click here for more details on the Dymax OP-60 Optical Positioning UV Adhesive \(3ml\)](#)



OP-60

Precision Positioning Optical Adhesive

APPLICATIONS	FEATURES	RECOMMENDED SUBSTRATES
<ul style="list-style-type: none"> Optical Alignment Where Minimal or No Movement is Required 	<ul style="list-style-type: none"> High-Strength Positioning Adhesive Low Outgassing Low Shrinkage Low Moisture Absorption Opaque Heat-Cycle Stable Non-Movement During Cure or Thermal Excursions Complete Cure in Seconds 	<ul style="list-style-type: none"> Glass Metal Ceramic FR-4 Polycarbonate

Dymax OP-60 is a low-shrinkage, low-outgassing, low-CTE adhesive designed for the precise positioning of lenses, prisms, and other optical components. OP-60 cures by exposure to ultraviolet and/or visible cure light. Dymax high-performance optical adhesives cure upon exposure to UV or visible light in seconds. Because of their solvent-free and rapid-cure features, they increase productivity, lower assembly cost and enhance worker safety. When cured with Dymax spot, beam, or flood lamps, they deliver optimum speed and performance for a variety of optical applications. This product is in full compliance with RoHS directives 2015/863/EU.

TYPICAL UNCURED PROPERTIES *			OTHER CURED PROPERTIES *		
Property	Value	Test Method	Property	Value	Test Method
Solvent Content	None - 100% Solids	N/A	Total Weight Loss (TWL)	1.66%	ASTM E595
Appearance	Light Yellow Paste	N/A	Volatile Condensable Material (CVCM)	0.10%	ASTM E595
Viscosity, cP (20 rpm)	150,000 (nominal)	ASTM D2556			
Chemical Class	Acrylated Urethane	N/A			
Soluble in	Organic Solvents	N/A			
Density, g/ml	1.59	ASTM D1875			
Shelf Life at Recommended Conditions from Date of Manufacture	18 months	N/A			
TYPICAL CURED PROPERTIES *					
Property	Value	Test Method			
Linear Shrinkage During Cure	0.8%	ASTM D-2566			
Durometer Hardness	D80	ASTM D-2240			
Elongation at Break	2.4%	ASTM D-638			
Tensile at Break	4,900 psi	ASTM D-638			
Modulus of Elasticity	146,250 psi	ASTM D-638			
Water Absorption (24 h)	2.8%	ASTM D-570			
Coefficient of Thermal Expansion, CTE	58 X 10 ⁻⁶ in/in ^o C (58 ppm)	ASTM D-696			
Dielectric Strength	600 V/mil	ASTM D-149			
Volume Resistivity	76.4 x 10 ⁺¹² ohm-cm	ASTM D-257			
Dissipation Factor, 1 MHz	0.02	ASTM D-150			
Dielectric Constant, 1 MHz	4.6	ASTM D-150			

* Not Specifications
N/A Not Applicable
© 2023 Dymax Corporation. All rights reserved.
All trademarks in this guide, except where noted, are the property of, or used under license by Dymax Corporation, U.S.A.
Technical Data Collected PRIOR TO 2003. Rev:02/19/2023



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

focenter.com • 508-992-6464 | (800) 473-4237 • sales@focenter.com

23 Centre Street • New Bedford, MA 02740 USA

Product specifications and data are subject to change without notice.



Manufacturer:
Dymax®

Product Name:
Dymax OP-60 Optical Positioning UV Adhesive (3ml)

Manufacturer Part Number:
OP-60-3ML

▶ [Click here for more details on the Dymax OP-60 Optical Positioning UV Adhesive \(3ml\)](#)



OPTICAL ADHESIVES
OP-60 Product Data Sheet

CURING GUIDELINES

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm² [10 psi] between glass slides. Actual cure time typically is 3-to-5 times fixture time.

Dymax Curing System (Intensity)	Fixture Time or Belt Speed ^A
2000-EC (50 mW/cm ²) ^B	2 s
5000-EC (200 mW/cm ²) ^B	1 s
BlueWave® 200 (10 W/cm ²) ^B	1 s
UVCS Conveyor with Fusion F300S (2.5 W/cm ²) ^D	7.9 m/min [26 ft/min]

^A Fixture times/belt speeds are typical for curing thin films through 100% UV and light-transmitting substrates. Light-obstructing substrates may require longer cure times.

^B Intensity was measured over the UVA range (320-395 nm) using a Dymax ACCU-CAL™ 50 Radiometer.

^D At 53 mm [2.1 in] focal distance. Maximum speed of conveyor is 8.2 m/min [27 ft/min]. Intensity was measured over the UVA range (320-395 nm) using the Dymax ACCU-CAL™ 6 Radiometer.

Full cure is best determined empirically by curing at different times and intensities, and measuring the corresponding change in cured properties such as tackiness, adhesion, hardness, etc. Full cure is defined as the point at which more light exposure no longer improves cured properties.

Dymax recommends that customers employ a safety factor by curing longer and/or at higher intensities than required for full cure.

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 shelf life noted on page 1 of this document, when stored between 10°C (50°F) and 32°C (90°F) in the original, unopened container.

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

focenter.com • 508-992-6464 | (800) 473-4237 • sales@focenter.com

23 Centre Street • New Bedford, MA 02740 USA

Product specifications and data are subject to change without notice.



Manufacturer:
Dymax®

Product Name:
Dymax OP-60 Optical Positioning UV Adhesive (3ml)

Manufacturer Part Number:
OP-60-3ML

▶ [Click here for more details on the Dymax OP-60 Optical Positioning UV Adhesive \(3ml\)](#)



OPTICAL ADHESIVES
OP-60 Product 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.

The data provided in this document are based on historical testing that Dymax performed under laboratory conditions as they existed at that time and are for informational purposes only. The data are neither specifications nor guarantees of future performance in a particular application. Dymax does not guarantee that this product's properties are suitable for the user's intended purpose.

Numerous factors—including, without limitation, transport, storage, processing, the material with which the product is used, and the ultimate function or purpose for which the product was obtained—may affect the product's performance and/or may cause the product's actual behavior to deviate from its behavior in the laboratory. None of these factors are within Dymax's control. Conclusions about the behavior of the product under the user's particular conditions, and the product's suitability for a specific purpose, cannot be drawn from the information contained in this document.

It is the user's responsibility to determine (i) whether a product is suitable for the user's particular purpose or application and (ii) whether it is compatible with the user's intended manufacturing process, equipment, and methods. Under no circumstances will Dymax be liable for determining such suitability or compatibility. Before the user sells any item that incorporates Dymax's product, the user shall adequately and repetitively test the item in accordance with the user's procedures and protocols. Unless specifically agreed to in writing, Dymax will have no involvement in, and shall under no circumstances be liable for, such testing.

Dymax makes no warranties, whether express or implied, concerning the merchantability of this product or its fitness for a particular purpose. Nothing in this document should be interpreted as a warranty of any kind. Under no circumstances will Dymax be liable for any injury, loss, expense or incidental or consequential damage of any kind allegedly arising in connection with the user's handling, processing, or use of the product. It is the user's responsibility to adopt appropriate precautions and safeguards to protect persons and property from any risk arising from such handling, processing, or use.

Except as otherwise noted, all trademarks used herein are trademarks of Dymax. The "®" symbol denotes a trademark that is registered in the U.S. Patent and Trademark Office.

The contents of this document are subject to change. Unless specifically agreed to in writing, Dymax shall have no obligation to notify the user about any change to its content.

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

focenter.com • 508-992-6464 | (800) 473-4237 • sales@focenter.com

23 Centre Street • New Bedford, MA 02740 USA

Product specifications and data are subject to change without notice.