



Manufacturer:
Dymax

Product Name:
Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 3ml Syringe

Manufacturer Part Number:
OP-21-3ML

▶ [Click here for more details on the Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 3ml Syringe](#)



OPTICAL ADHESIVES

OP-21 & OP-21G Product Data Sheet

**OP-21 & OP-21G
Flexible Plastic Bonder**

Designed as efficient optical plastic bonders, OP-21 and OP-21G cure upon exposure to UV or visible light in seconds. Even most UV opaque and translucent plastics are easily bonded with light. 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.

- SUBSTRATES BONDED:** • Polycarbonate • Polystyrene • Acrylic • Plastics • Metals • Glass
- FEATURES:** • Solvent Free • High Strength • Optically Clear • Wide Surface Compatibility
- APPLICATIONS:** • Broad Temperature Range • Complete Cure in Seconds
- Lens Bonding • Fixturing • Tacking

TYPICAL UNCURED PROPERTIES

Solvent Content		None - 100% Solids	
Composition		Urethane Acrylate	
Appearance		Clear Liquid	
Solubility		Alcohols/Chlorinated Solvents/Ketones	
Flash Point		>85°C (185°F)	
Density		1.06	
Viscosity	OP-21	450 cP	ASTM D-1084
	OP-21G	25,000 cP	

TYPICAL CURED PROPERTIES

<i>PHYSICAL</i>			
Linear Shrinkage		2.7 %	ASTM D-2566
Durometer Hardness		D55	ASTM D-2240
Elongation at Break		175%	ASTM D-638
24 hr Water Absorption		1.8%	ASTM D-570
Tensile at Break		1,700 psi	ASTM D-638
Boiling Water Absorption (2 h)		1.3%	ASTM D-570

*DSTM refers to Dymax Standard Test Method

RECOMMENDED CURING SYSTEMS

Lamp	2000-EC	5000-EC	PC-3	3010-EC
Light Type	UV	UV	UV	UV
Lamp Type	Flood	Flood	Spot	Spot
Intensity (mW/cm ²) at Peak Wavelength	50 @ 365 nm	150 @ 365 nm	1000 @ 365 nm	1800 @ 365 nm
Wavelength (nm) Working Range	300-500	300-500	300-500	300-500
Cure speed (sec)				
Between glass slides	1	1	1	1
1/8" Bead	20	15	10	7
Cure Depth in 1 Minute (inch)	3/16	9/16	1/8	3/16



© 2000-2012 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 provided 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 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 communication shall act as a representation that the product use or application will not infringe on a patent owned by someone other than Dymax or act as a grant of 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 in this communication as a general guideline.

Technical Data Collection Prior to 2000

REV. 12/27/2018

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. FOC last update 3/9/2026.



Manufacturer:
Dymax

Product Name:
Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 3ml Syringe

Manufacturer Part Number:
OP-21-3ML

▶ Click here for more details on the Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 3ml Syringe



OPTICAL ADHESIVES

OP-21 & OP-21G Product Data Sheet

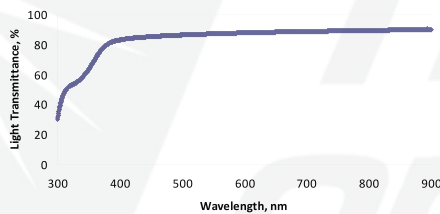
The required intensity and cure time should be determined during the initial process validation stage. Factors that should be considered during process validation which can effect the adhesive cure rate and depth of cure include part geometry, bond-gap size, percent light transmittance through the substrate at 365 nm and/or 436 nm, distance from the light source to the adhesive bond are. UV and visible light intensity and spectral output of the light source, the desired margin of safety to be built into the process, etc.

OPTICAL PROPERTIES

Refractive Index (25°C) Uncured	1.478	ASTM D-1218
Refractive Index (25°C) Cured	1.50	ASTM D-1218

LIGHT TRANSMITTANCE*

OP-21 & OP-21G



*Measured at 0.03 mm [0.001in] per ASTM-501†

STORAGE AND SHELF LIFE

Store the material in a cool, dark place when not in use. Do not expose to light. This product may polymerize upon prolonged exposure to ambient and artificial light. Keep covered when not in 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 THE ADHESIVE

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.

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.

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



Manufacturer:

Dymax

Product Name:

Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 3ml Syringe

Manufacturer Part Number:

OP-21-3ML

▶ [Click here for more details on the Dymax OP-21 Plastic Bonding Adhesive, Optically Clear, UV Cure - 3ml Syringe](#)



OPTICAL ADHESIVES

OP-21 & OP-21G Product Data Sheet

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.

† DSTM refers to Dymax Standard Test Method

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