



**Manufacturer:**  
Dymax®

**Product Name:**  
Dymax OP-20 Optical Adhesive, Optically Clear, UV Cure - 3ml Syringe

**Manufacturer Part Number:**  
OP-20-3ML

▶ [Click here for more details on the Dymax OP-20 Optical Adhesive, Optically Clear, UV Cure - 3ml Syringe](#)



**OPTICAL ADHESIVES**  
**OP-20 Product Data Sheet**

**OP-20**  
**High-Performance Optical Adhesive**

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, focused-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:** • Acrylic • Polystyrene • Polycarbonate • Plastics • Metals • Glass
- FEATURES:** • Solvent Free • High Strength • Optically Clear • Wide Surface Compatibility  
• Broad Temperature Range • Complete Cure in Seconds
- APPLICATIONS:** • 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 (20 rpm)	1,000 cP	ASTM D-1084

**TYPICAL CURED PROPERTIES**

*PHYSICAL*

Linear Shrinkage	2.7 %	ASTM D-2566
Durometer Hardness	D60	ASTM D-2240
Elongation at Break	150%	ASTM D-638
Modulus of Elasticity	130,000 psi	ASTM D-638
Tensile at Break	2,200 psi	ASTM D-638
Boiling Water Absorption (2 h)	8.0%	ASTM D-570
24 hr Water Absorption	23.0%	ASTM D-570

\*DSTM refers to Dymax Standard Test Method

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

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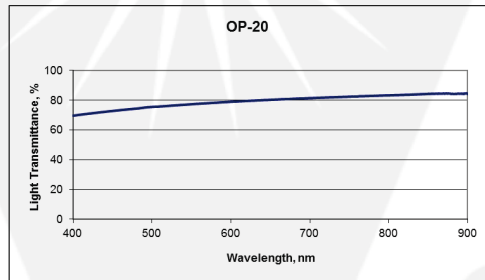
**RECOMMENDED CURING SYSTEMS**

Lamp	2000-EC	5000-EC	PC-3	3010-EC
Light Type	UV Flood	UV Flood	UV Spot	UV Spot
Intensity (mW/cm <sup>2</sup> ) 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	1	1	1	1
1/8" Bend	7	3	6	7
Cure Depth in 1 Minute (inch)	3/16	9/16	1/8	3/16

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: 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. For specific technical recommendations relating to the application, please contact Dymax Application Engineering.

**OPTICAL PROPERTIES**

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



Measured at 0.03 mm [0.001 in] per DSTM-501

**DISPENSING AND HANDLING ADHESIVE**

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

**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.

**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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## OPTICAL ADHESIVES OP-20 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.

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