



## **Manufacturer:**

Dymax®

## **Product Name:**

Dymax OP-20 General Purpose UV Adhesive (30ml)

**Manufacturer Part Number:** 

OP-20-30ML

Click here for more details on the Dymax OP-20 General Purpose UV Adhesive (30ml)



**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

• 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

Composition

Appearance

None - 100% Solids

Urethane Acrylate

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** 130,000 psi **ASTM D-638** Modulus of Elasticity Tensile at Break 2,200 psi **ASTM D-638** Boiling Water Absorption (2 h) 8.0% **ASTM D-570** 23.0% **ASTM D-570** 24 hr Water Absorption

\*DSTM refers to Dymax Standard Test Method





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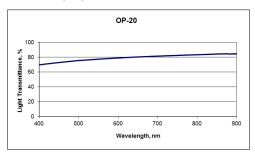
#### RECOMMENDED CURING SYSTEMS

Lamp	2000-EC	5000-EC	PC-3	3010-EC
Light Type Lamp Type	UV Flood	UV Flood	UV Spot	UV Spot
Intensity (mW/cm²) 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 1/8" Bend	1 7	1 3	1 6	1 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 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. 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.

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





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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.

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.

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