

DYMAX CORPORATION

PRELIMINARY PRODUCT DATA SHEET ELOP Catalog No. 1183-0762-02

OP-4-20762-SV02 OPTICAL ADHESIVE Optomechanical Assembly

INTRODUCTION

Dymax high performance optical adhesives cure upon exposure to UV light in seconds and are designed to increase productivity, lower assembly cost and enhance worker safety. These results were obtained using high intensity Dymax spot, beam and flood lamps. Dymax lamps deliver optimum speed and performance for a variety of optical applications.

DESCRIPTION

Dymax OP-4-20762-SV02 is a clear, UV or visible light curing adhesive with high transmission across the optical spectrum. OP-4-20762-SV02 is very soft, low modulus, low outgassing, and is designed for thermal cycling of fragile optical components. This product is in full compliance with RoHS directives 2015/863/EU.

TYPICAL UNCURED PROPERTIES (not specifications)

Solvent Content	None-100% Reactive Solids	
Composition	Urethane Acrylate	
Appearance	Optical Clear	
Solubility	Alcohols/Ketones/Chlorinated Solvents	
Toxicity	Low	
Flash Point	Over 93°C (>200°F)	
Viscosity	1,000 cP (nominal)	ASTM D-1084

TYPICAL CURED PROPERTIES (not specifications)

Refractive Index, n ²⁰ _D	1.505	ASTM D-1218
Durometer Hardness	D40	ASTM D-2240
Modulus of Elasticity	3,000 psi	ASTM D-638
Elongation at Break	120%	ASTM D-638
Tensile at Break	1,500 psi	ASTM D-638
24 hr Water Absorption	1.0%	ASTM D-570
2 hr Boiling Water Absorption	2.0%	ASTM D-570
Linear Shrinkage	<0.5%	ASTM D-2566

*DSTM Refers to Dymax Standard Test Method



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OP-4-20762-SV02, 05/07

CURE DATA (not specifications)

Lamp	2000-EC	5000-EC
Light Type	UV/Visible	UV/Visible
Lamp Type	8" x 8" Flood	5" x 5" Flood
Maximum Lamp Intensity @ 365 nm	50 mW/cm ²	300 mW/cm ²
Intensity @ time of test @ 365 nm	20 mW/cm ²	150 mW/cm ²
Adhesive Absorption Range (nm)	300-400	300-400
Equipment Output Range (nm)	300-500	300-500
Typical Cure speed (seconds)		
Fixture between glass slides	3	3
Tack-free surface cure	7	4
1/16-inch bead	15	10

STORAGE AND SHELF LIFE

Store material in cool, dark place when not in use. Do not expose to UV light or sunlight. Material may polymerize upon prolonged exposure to ambient light. 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. Do not refrigerate.

DISPENSING & HANDLING ADHESIVE

Dymax OP-4-20762-SV02 adhesive is available in 3-mL, 5-mL, 10-mL and 30-mL manual or machine ready syringes and 170-mL cartridges. Machine ready syringes may be dispensed from a variety of automatic bench-top syringe applicators or other equipment as required. Any questions relating to dispensing and curing systems for specific applications should be referred to the Dymax Technical Center at (860) 482-1010.

CAUTION

This product is intended for industrial use only. Avoid breathing vapors. In case of inhalation, remove to fresh air and seek medical attention if symptoms persist. Avoid contact with skin, eyes, and clothing. In case of skin contact, immediately wash with soap and water for at least 15 minutes. In case of eye contact, flush thoroughly with water and get medical attention. Wash clothing before reuse. Keep out of reach of children. Do not take internally. In case of ingestion, see Section 4 of Material Safety Data Sheet. Workers should wear impervious gloves and eye protection. Repeated or continuous skin contact with uncured adhesive will cause irritation and should be avoided. Never use solvents to remove adhesive from skin and eyes. For specific information, refer to the Material Safety Data Sheet before use.

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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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