

## Multi-Cure® 984-T Conformal Coating

Multi-Cure 984-T is a single-component, 100% solids conformal coating specifically formulated for rapid room-temperature cure when exposed to long-wave (320-380 nanometer) UV light. Thin and thick layer coatings are achieved in seconds upon exposure to high-intensity UV light. Potting to depths in excess of 1" are possible.

Upon cure, Multi-Cure 984-T produces a hard, clear, glossy coating and should be the Dymax conformal coating product of choice in applications not requiring post-cure fluorescence.

Multi-Cure 984-T also exhibits excellent adhesion to a variety of metal, ceramic, and glass-filled epoxy surfaces. It is a moderately low-viscosity coating which can be cured by exposure to UV light and secondarily with heat for shadowed areas on densely populated circuit boards. This product is in full compliance with RoHS directives 2015/863/EU.

### UNCURED PROPERTIES

Solvent Content	None
Appearance	Single Component/Clear Liquid (Solventless)
Specific Gravity	1.1
Pot life	12 Months
Viscosity <sup>[1]</sup>	2,500 cP (nominal)

### CURED PROPERTIES

#### PHYSICAL

Durometer Hardness	D85-90	ASTM D-2240
Tensile at Break	6,200 psi	ASTM D-638-77A
Elongation at Break	>10%	ASTM D-638-77A
Water Absorption	.06%	ASTM D-570
Cross Hatch Adhesion Test:	Copper 100%	
	G-10 100%	

#### THERMAL

Thermal Limit (brittle/degrades)	-54° to 149°C (-65° to 300°F)
Coefficient of Linear Thermal Expansion	69 x 10 <sup>-6</sup> in/in/°C

#### ELECTRICAL

Dielectric Strength	1,800 Volts/Mil	ASTM D-1304
Volume Resistivity	35.8 x 10 <sup>13</sup> ohm-cm	ASTM D-1304
Surface Resistivity	384 x 10 <sup>14</sup> ohm	ASTM D-1304
Dissipation Factor, 1MHz	0.03 (23°C)	ASTM D-1304
Dielectric Constant, 1MHz	3.41 (23°C)	ASTM D-1304

### CURE SCHEDULE - UV Cure with 365 nm UV light<sup>[2]</sup>:

100 milliwatts/cm <sup>2</sup> Intensity	30 seconds
300 milliwatts/cm <sup>2</sup> Intensity	5 seconds



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### Heat Cure Following UV Exposure

Heat can be used as a secondary cure mechanism where all adhesive cannot be cured with UV light. UV cure must be done prior to heat cure. Application may employ dip, spray or curtain coat. The following cure schedule may be used:

107.2°C (225°F)	1 hour
121.1°C (250°F)	30 minutes
148.9°C (300°F)	15 minutes

### **FACTORS AFFECTING CURING**

- ◆ Dark surfaces lengthen cure time. Thicker films require longer cure times.
- ◆ Full range (UV-A, B & C) lamps provide faster cures than filtered sources.
- ◆ All UV sources degrade with use. Check output periodically with a radiometer.
- ◆ Light intensity decreases as distance from UV source increases.

### **HANDLING AND DISPENSING ADHESIVE**

Typically Dymax 984-T is dipped or sprayed. For questions relating to dispensing, curing systems, or the use of Dymax products, contact Dymax Application Engineering.

Repeated or continuous skin contact may cause sensitization and should be avoided. Do not wear jewelry. The use of barrier hand cream is recommended. Do not wear absorbent gloves. Adhesive may be removed with hand soap and water. Avoid eye contact. See CAUTION below. Wipe excess adhesive with paper towels; remove residue with chlorinated solvents, freon, methanol, ethanol, or isopropanol.

### **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.

### **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; for eyes, get medical attention. Wash clothing before reuse. Keep out of reach of children. Do not take internally. If swallowed, vomiting should be induced at once and a physician called. For specific information, refer to the Material Safety Data Sheet before use.

### **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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