

## Multi-Cure® 9-984-B Black, Low-Gloss, Protective Conformal Coating

Multi-Cure® 9-984-B is a single-component, 100% solids conformal coating specifically formulated for rapid room-temperature cure when exposed to UV/Visible light. Upon cure, Multi-Cure® 9-984-B produces a hard, black, low-gloss protective coating. This thin black coating is excellent for hiding components and board features. Based on Dymax's 984 family of conformal coatings, 9-984-B exhibits excellent adhesion to a variety of metal, ceramic, and glass-filled epoxy surfaces. This product is in full compliance with RoHS directives 2015/863/EU.

**Multi-Cure 9-984-B is UL recognized 94V-0 (@ 0.002") and 94V-1 (@ 0.010") flame class.**

### TYPICAL UNCURED PROPERTIES (not specifications)

Solvent Content	None, 100% Reactive Solids	
Chemical Class	Urethane (Meth)Acrylate	
Appearance	Blue/Black Liquid	
Cleaning Solvents	Alcohols, Chlorinated Solvents or Ketones	
Viscosity (20 rpm)	6,000 cP (nominal)	ASTM D-2556

### TYPICAL CURED PROPERTIES (not specifications)

Durometer Hardness	D80	ASTM D-2240
Tensile at Break	6,200 psi	ASTM D-638
Elongation at Break	5%	ASTM D-638
Water Absorption	0.4%	ASTM D-570
Thermal Limit (brittle/degrades)	-55° to 150°C (-65° to 300°F)	
Glass Transition Temperature, T <sub>g</sub>	83°C	DSTM 256*

### *ELECTRICAL*

Dielectric Strength	1,800 Volts/mil	ASTM D-1304
Volume Resistivity	35.8 x 10 <sup>12</sup> ohm-cm	ASTM D-1304
Surface Resistivity	384 x 10 <sup>12</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

\*DSTM refers to DYMAX Standard Test Method

### TYPICAL CURED DATA

	Cure Time (seconds)	Intensity <sup>[1]</sup> mW/cm <sup>2</sup>	Dymax Lamps
Minimal Energy for Tack-Free Cure	30	150	5000-EC
Maximum Cure Depth (0.070 inch)	2	>1000	UVC6/F300*

\* Recommend curing coating with conveyor speed between 1-5 ft/min depending upon printed circuit board.



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Technical Data Collection Prior to 2005

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### HEAT CURE FOLLOWING UV EXPOSURE

Heat can cure this coating in areas UV light does not reach. UV/Visible cure produces a coating dry to the touch. Heat cure without UV curing leaves air-exposed surfaces either wet or tacky, so always cure air-exposed surfaces with UV light first. Heat cure works for cavities. The following heat-cure schedule may be used after UV/Visible light exposure:

<u>Coating Temperature</u>	<u>Time</u>
110°C [225°F]	1 hour
120°C [250°F]	30 minutes
150°C [300°F]	15 minutes

### DISPENSING AND HANDLING ADHESIVE

This material may be dispensed with a variety of manual and automatic applicators or other equipment as required. Questions relating to dispensing and curing systems for specific applications should be referred to Dymax Application Engineering.

### STORAGE AND SHELF LIFE

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

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 inhalation, remove to fresh air and seek medical attention if symptoms persist. 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 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.

### 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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