

## DYMAX 948 SERIES UV CURABLE WATER SOLUBLE MASKS

### INTRODUCTION

Dymax 948 Series water-soluble mask products are 100% solids, solvent-free, easy-to-use formulations designed primarily for manual or fully automated masking of printed circuit boards prior to soldering. They may also be used in a variety of temporary adhesive applications.

Dymax 948 Series masks cure in seconds "on demand" when exposed to "worker friendly" long wave (365 nanometer) UV light, and require no long drying times or heat curing. PC boards are immediately ready for soldering or conformal coating without need for racking and waiting. Typical commercial in-line aqueous processes remove Dymax 948 Series in less than 3 minutes at 150°F.

### DESCRIPTION

Dymax 948 Series products are very fast-curing, nonionic, UV-curable masks offering good adhesion for temporary applications.

- ◆ Stable, one-part, solvent-free formulation
- ◆ Fast, on-demand cure
- ◆ Low odor
- ◆ Adhesion to 2,000 psi
- ◆ Semipermanent
- ◆ Water-soluble
- ◆ No solid residue, eliminates clogging filters in aqueous washes

### CHEMICAL PROPERTIES

Solvent Content	None		
Appearance	Amber		
Toxicity	Low		
Shelf life	<24°C (75°F)		
Flash Point	93°C (>200°F)		
Viscosity (1)	948-VLV	100 cP (nominal)	ASTM D-1084
	948	2,500 cP (nominal)	ASTM D-1084
	948-VT	10,000 cP (nominal)	ASTM D-1084
	948-T	10,000 cP (nominal)	ASTM D-2556

### TYPICAL CURED PROPERTIES

	Cure Time (seconds)	Intensity mW/cm <sup>2</sup>	Dymax Light- Welder Lamp
Cure Speed, 0.020" thick mask	10-12 5-7	25 100	2000-EC 5000-EC

Maximum Cure Depth: - 0.250"; over 0.040 inch, use Dymax Light-Welder® 2000-EC light source (25mW/cm<sup>2</sup>).

Adhesive tensile (Modified ASTM D1002 glass/steel)	2,000 psi
Cross Hatch Adhesion Test	Passed
Fluxes	Resists RMA rosin flux, soldering oil and soldering temperatures.

## **REMOVAL**

1/8" beads are removed by exposure to hot water (150°F) spray in less than 3 minutes.

## **WASTE DISCHARGE REGULATIONS**

Cured Dymax 948 Series products consist of polyvinylpyrrolidone polymers (PVP). These systems do not contain any organic or inorganic toxic substance according to EPA, Connecticut, California and Michigan waste discharge listings. Dissolved Dymax 948 Series products show a neutral pH of 7 in up to 20% concentration.

## **STORAGE & SHELF LIFE**

Light Weld water soluble adhesives are moisture sensitive and should be stored sealed in their moisture tight, plastic envelope when not in use. Use of desiccant is recommended. The product should be used within one month of opening.

Shelf life is four months from date of shipment in the unopened, moisture proof envelope.

## **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.

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