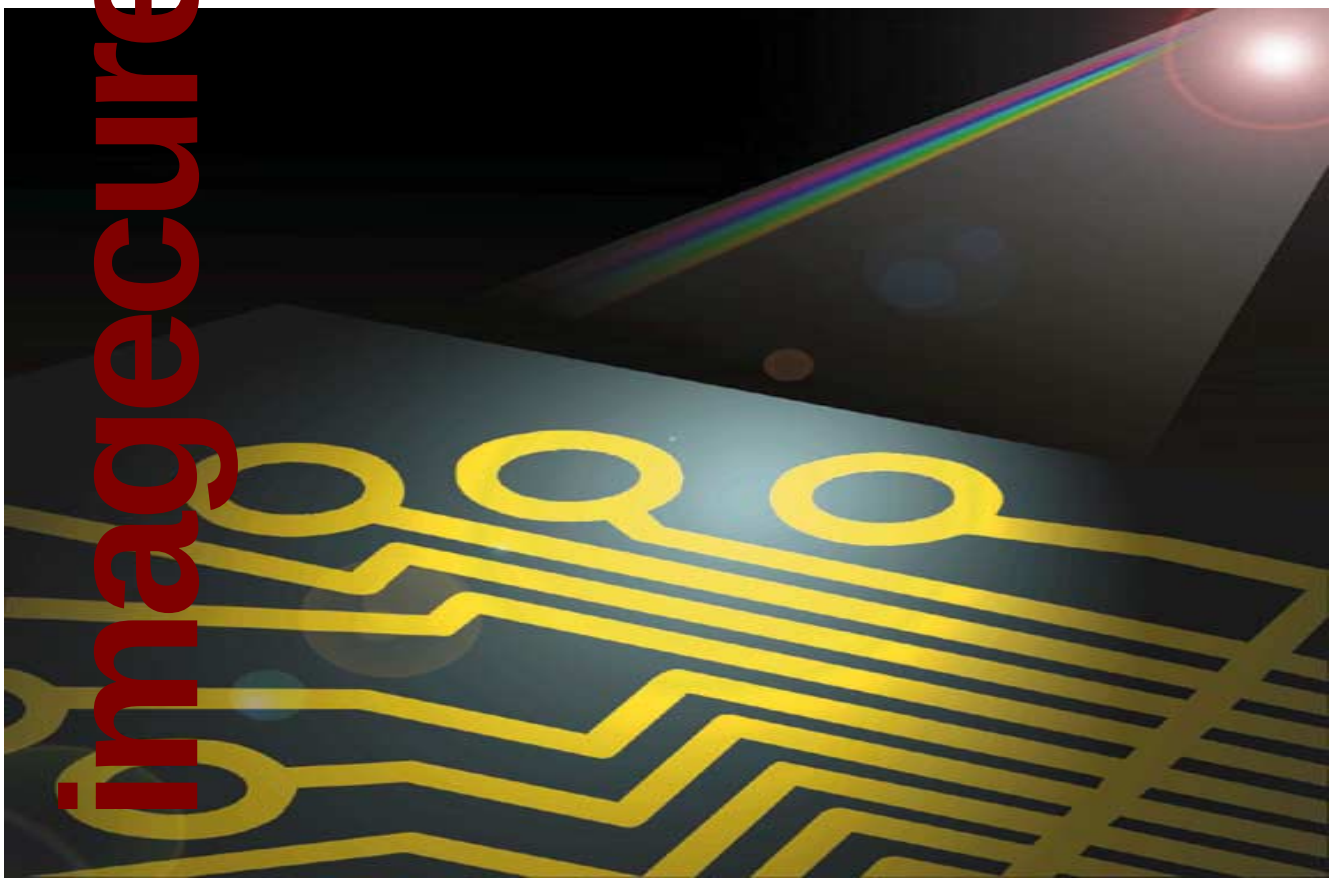
Imagecure® XV501T. A new era in Liquid Photimageable Soldermask (LPISM). Introducing the 4TH GENERATION of an international industry standard, conceived especially for high density interconnect circuit applications.



IMPROVED FEATURES

- Finer resolution yielding smaller solder dams
- Wider process latitude/window
- Pencil hardness 8H – 9H
- Superior thermal & electrical performance
- Increased pre-dry tolerances
- Higher first pass yields

ASSEMBLY PERFORMANCE FEATURES

- No solder balls
- Low ionic contamination
- Compatible with no-clean fluxes

STANDARD FEATURES

- Can be applied by screen-printing, curtain coating, electrostatic spray or air assisted spray.
- Aqueous or solvent based development
- Outstanding resolution down to 1 mil/25 microns
- Electroless Ni/Au and immersion on tin compatibility
- Thixotropic structure – better coverage with reduced coating weights
- Available in Gloss, Semi-matte, Matte & Extra Matte finishes
- Available in Green, Yellow-Green, Clear, Red, Black, White, Blue and Yellow
- Manufactured to ISO 9001 standards
- Meets or exceeds all IPC SM-840C & Bellcore TR – NWT-000078 requirements

ENVIRONMENT We cAre ENVIRONMENT

Coates Circuit Products

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typical properties

bellcore testing

PROPERTY	MINIMUM REQUIREMENT	RESULT
Hydrolytic Stability/Aging	No irreversible change of state per IPC SM-840	Pass
Electromigration	Average IR (final) ≥ IR (Initial)	Pass
	10	
	96 hours	2.2×10^4 megohms
	500 hours	1.2×10^4 megohms
Insulation Resistance	Average IR ≥ 1.2×10^5 megohms	1.2×10^7 megohms
Corrosion of Copper	No discoloration or corrosion of copper circuitry	Pass
Oxygen Index	> 28%	55%
Ionic Contamination	MILP551104D	<2.0µg NaCl/in^2/0.3µg NaCl/cm^2 (Using Alpha Ionograph 500M)

ipc sm-840c

PROPERTY	MINIMUM REQUIREMENT	RESULT
Abrasion Resistance	50 cycles minimum	> 50 cycles
Adhesion to Copper	0% removed	0%
Adhesion to Laminate	0% removed	0%
Machinability	No cracks or tears	Pass
Pencil Hardness	F (minimum)	8H – 9H
Flammability	94 V number shall not be raised	94 V – 0 (> 0.012) File E83564 (M)
Non-Nutrient	No support of, contribution to, or degradation by biological growth	Pass
Solder Resistance	Solder shall not adhere to the soldermask	Pass (>30 secs @288°C
Solderability	The solderability of the board shall not be diminished	Pass
Soldering / Desoldering	No separation from base laminate or conductors	Pass
Thermal Shock	No blistering, crazing or delamination after 100 cycles	Pass (> 100 cycles)
	MIL P55110D	Pass
	MIL STD202E	Pass
Resistance to Solvents	No surface roughness, tackiness, blistering or color change	
	I.P.A.	Pass > 1 hour
	1.1.1. Trichloroethane	Pass > 1 hour
	M.E.K.	Pass > 1 hour
	Methylene Chloride	Pass > 1 hour
	Alkaline Detergents	Pass > 1 hour
	Fluxes	Pass > 1 hour
Hydrolytic Stability	No irreversible change of state	Pass
Dielectric Strength	500 VDC	> 2500 VDC
Insulation Resistance	5×10^8 ohms	2×10^{12} ohms
Moisture and Insulation Resistance	5×10^8 ohms, final	2×10^{13} ohms
Electromigration	No visual evidence of migration; Resistance greater than 2 megohms	Pass
Dielectric Constant @ 1 MHz	Not specified	4.55 +/-0.035
Comparative Tracking Index	IEC112	>600
Loss Tangent (10^2 Hz – 10^6 Hz)	Not specified	0.01

other testing

NPS0445	Surface Insulation and Electromigration	Pass
SN57030	E-Corrosion	Pass
BS6096		Pass