



TECHNICAL DATA SHEET SCRIBE ELV 13

UV CURING LEGEND INKS

PRODUCT DESCRIPTION

ELV13 UV curable legend inks are a range of high definition, strong contrast, single component UV curing inks for use in board marking and component reference.

Once fully cured they exhibit excellent resistance to no clean fluxes and industrial solvents.

ELV13 has excellent adhesion to bare laminates and soldermask surfaces, particularly the **EMV30 soldermask** range.

FEATURES and ADVANTAGES

- **Optimized rheology.** Screen-print characteristics are developed and controlled using computerized rheology equipment, which ensures consistent, high-speed printing to extremely tight tolerances.
- **100% solids.** Because there is no solvent to evaporate, **ELV13** will not dry in the screen, allowing continuous long runs and the elimination of mid-shift clean-ups.
- **Flexible.** **ELV13** cures to form a tough film that is not vulnerable to brittle flaking during the rigours of high volume PCB manufacture.
- **Strong colour.** **ELV13** has a strong colour and high opacity giving good contrast, making legend prints easy to read and inspect.
- **Good adhesion.** **ELV13** is formulated to give excellent adhesion to paper/phenolic, paper/epoxy and glass/epoxy substrates plus most soldermask surfaces.

ELV13 PRODUCT RANGE

ELV13 is available in White, Yellow or Black as standard, other colours may be available on request.

Note:- a 4-figure number following the product group may be included in the full product code title



Printing

Mesh count: 90T-120T (230-305 mesh) polyester.

Stencil: Capillary or emulsion stencils giving 8 to 12µm proud of screen mesh.

Squeegee: 70 to 80 shore.

Viscosity reduction: If viscosity adjustment is required before or during printing, up to 3% ERV3 may be added. Excessive ERV3 will deteriorate print and cure properties.

Curing

Adhesion of **ELV13** to soldermask or laminate and the chemical resistance to fluxes and solvents is dependent on achieving a good degree of cure.

Thorough curing of the resist is achieved by passing through a 2 or 3 (80 Wcm⁻¹) mercury vapour lamp unit at conveyor speeds between 2 and 5 mmin⁻¹ (7 to 16 ftmin⁻¹). See energy requirements.

Energy requirements:

ELV13 W	White	1800 to 2500mJcm ⁻²
ELV13 Y	Yellow	2500 to 3500mJcm ⁻²
ELV13 N	Black	2500 to 3500mJcm ⁻²

When applying ELV13 over UV soldermasks such as **EMV30** or thermal curing soldermasks such as **EM60** it is recommended to partially cure the soldermask to allow a better key of the ELV13. If applying ELV13 over photoimageable soldermasks (LPI) such as **EMP110** it is recommended to apply them before final curing, do not apply ELV13 to LPI that has been UV bumped after final curing.

Cleaning: Screen and stencil can be cleaned using **SW100**.

Storage: Store between 10-25°C (50-75°F) in a dry store. Avoid subjecting containers to temperatures below 5°C (40°F) because of risk of splitting.
Containers must be kept away from sources of heat and direct sunlight.

Shelf-life: Minimum 6 months from date of manufacture when stored in cool dry conditions, away from direct sunlight or sources of heat.



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