



TECHNICAL DATA SHEET
SCRIBE
EL16 LV
2-COMPONENT LEGEND RANGE

PRODUCT DESCRIPTION

EL16 is a 2-component legend ink system for marking printed circuit boards. It is extremely fast curing and offers strong contrast, high definition and good chemical resistance.

FEATURES & ADVANTAGES

- **Longer pot life.** 2 component mixture remains usable for up to 4-5 days (hardener and ambient condition dependent)
- **Increased screen stability.** Less drying-up and, no staining of mesh.
- **No colour change on soldering.** White and yellow legends do not assume an off-colour tinge after soldering.

EL16 PRODUCT RANGE

EL16/2719 W LV
EL16/5448 Y LV
EL16/5451 N LV

White
Yellow
Black

EL16 PtB
H-1413

Hardener (long mixed pot life – convection curing)
Hardener for IR curing

PROCESSING

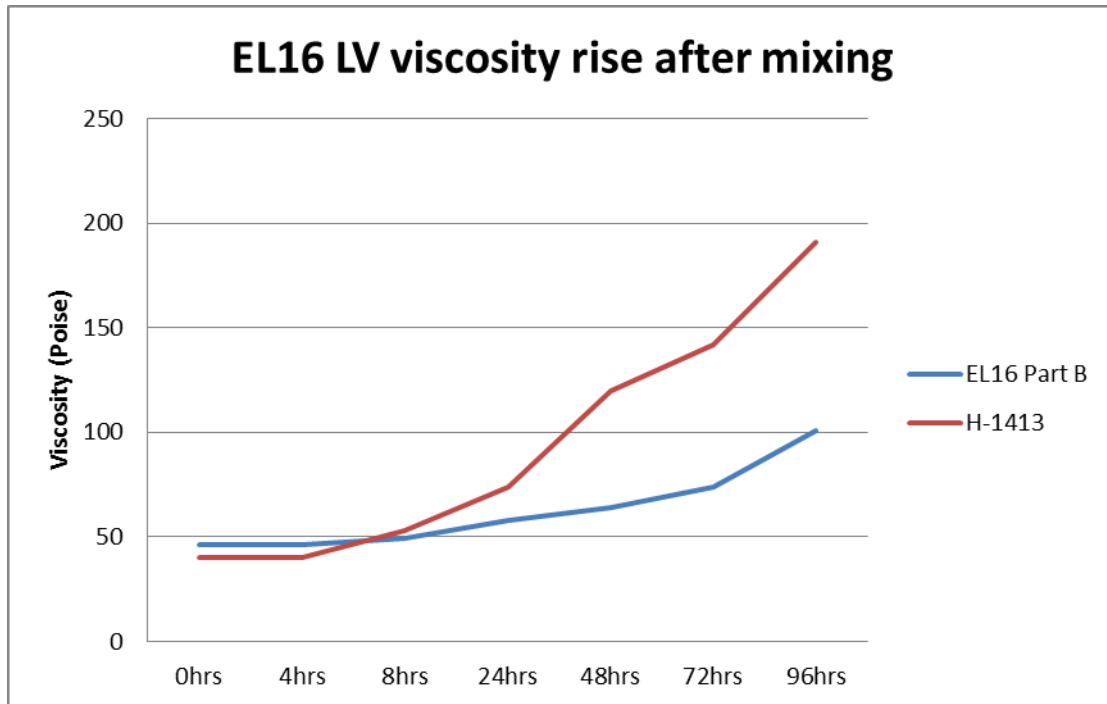
Mixing: EL16 is supplied pre-weighed for safe and easy mixing.
If smaller quantities are required; EL16 should be mixed in the ratio 9:1, paste:hardener, by weight.

Important: Mix paste and hardener until homogenous. Incomplete mixing will lead to problems.

E.g. Poor adhesion to substrate
Poor chemical resistance
Patchy colour/finish.



Viscosity rise after mixing



Printing: Mesh: 77 - 100T polyester Squeegee: 70 - 80 shore

Curing: **CONVECTION OVEN**
10 to 20 min at 140-150°C (284-300°F)

IR CURING (H-1413 only)
2 min at 160-180°C (320 - 356°F)

Important: All times are time **at board temperature**

Users should make their own tests when using IR curing owing to the variation between different machines, e.g. IR wavelength and IR intensity.
Please contact Electra Technical service department for recommendations

SHELF LIFE:

Minimum 12 months from date of manufacture when stored in cool dry conditions.



CLEANING:

Screens and equipment should be cleaned using Universal Screenwash **SW200**.

FINAL PROPERTIES

Physical properties

| | |
|---|------------------------------|
| Pencil Hardness: | 5-6H |
| Solder resistance: (SM840A III) | >20s @ 260°C >30s @ 274°C |
| Solvent resistance: against CFCs & alcohols. (SM840A III) | No degradation |
| Flux resistance: (SM840A III) | No degradation |

Electrical properties

| | |
|---|-------------------------------------|
| Dielectric strength: | 45kVmm ⁻¹ |
| Dielectric loss factor: | 0.02 @ 1MHz |
| Surface resistivity: | 10 ¹⁴ Ω |
| Volume resistivity: | 10 ¹⁶ Ω cm ⁻¹ |
| Moisture & insulation resistance (IPC SM840A): | >10 ¹⁰ Ω |
| Dielectric constant: | 3.4 @ 1MHz |

A-A 56032D Type II

EL16 has not been specifically tested to A-A 56032D Type II . The generic requirements of the specification will be met by EL16 (i.e. composition (epoxy based, additives, thinner, pot-life, curing).

Test criteria such as 3.9.2.1 (chemical resistance) are covered in the above results and in our standard internal QC testing.

Specific testing, such as, Salt spray, Light fastness, Abrasion and Accelerated weathering has not been carried out.



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