



TECHNICAL DATA SHEET

ELECTRA^ΩD'ORTM

ED2000 SERIES

**SILVER CONDUCTIVE PASTES FOR RIGID
CIRCUIT BOARDS**

PRODUCT DESCRIPTION

ED2000 SILVER PASTES are highly conductive, silver-filled thermosetting conductor paste suitable for use on rigid substrate. They can be used for printing complete circuits or providing "jumper" connections on conventional circuits where high conductivity is required. They also have a long, hard wearing surface and are suitable for use as sliding contacts.

FEATURES & ADVANTAGES:

- **High conductivity.** ED2000 resistivity is only 30 - 35 mΩ⁻¹
- **Excellent adhesion.** No peeling when tested as per cross hatch test IPC D-320.
- **High resolution.** 250µm tracks and spaces on typical thick film printers.
- **High abrasion resistance.** ED2000 has a surface hardness of 6H.

ELECTRA^ΩD'ORTM ED2000 PRODUCT RANGE

ED2000 Sheet resistivity **30 - 35 mΩ⁻¹** @ 15µ thickness

PROCESSING

Printing: The following factors all influence the quality of the print obtained:

**Screen mesh: % opening, mesh type (S.T.HD) and material (stainless steel or polyester)
Stencil type and thickness.**

**Squeegee: hardness, sharpness, blade shape, angle and speed of print stroke.
Snap off distance.**

Typical setup: 43 - 77T polyester mesh or equivalent stainless steel with a 13 - 25 µm emulsion stencil.



Drying: 5 mins at 120 - 150°C

Curing: Convection: 30 - 60 mins at 150 - 160°C
IR: 2 to 3 minutes at 180-200°C

Important: IR curing is the most efficient method of curing silver inks, however resistance values and cure speeds will be dependent on IR wavelength and intensity, please contact Electra technical service department for recommendations.

Convection oven cure will tend to give higher resistance values than infra red or vapour phase. If other methods of curing are used such as infra red radiation or vapour phase then individual profiles will need to be determined. With IR or vapour phase curing it is important to dry the solvent out of the ink before curing, to avoid solvent boil in the ink.

Shelf life: Minimum 3 months from date of manufacture when stored in at room temperature

Minimum 6 months from date of manufacture when stored under refrigeration.

Important:

After removing from the refrigerator, containers should be allowed to come to room temperature before opening. After printing, product from the screen should not be mixed with fresh ED2000. Instead it should be put in to a separate container to have it's viscosity reduced with **ER7** (if necessary) ready for re-use.

Viscosity adjustment

If thinning becomes necessary due to evaporation loss with prolonged usage, then **ER7** should be used up to a maximum of 5%.

SCREEN CLEANING:

Screens may be cleaned using Electra Universal Screenwash **SW100**.



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