



TECHNICAL DATA SHEET

*ELECTRA-D'OR*TM

ED4000 SERIES

CARBON CONDUCTIVE PASTES
FOR FLEXIBLE CIRCUIT BOARDS

PRODUCT DESCRIPTION

ED4000 CARBON PASTES are graphite filled conductive overprint inks designed for use with ED3000 silver conductive paste. **ED4000** provides excellent protection with the lowest possible resistance. **ED4000** are thermoplastic conductive pastes developed specifically for untreated polyester, polyimide and polycarbonate films.

FEATURES & ADVANTAGES:

- **Low sheet resistance.** **ED4000** resistance is only $40 \Omega \square^{-1}$
- **Low contact resistance** Less than 3Ω .
- **Excellent adhesion.** No peeling when tested as per cross hatch test IPC D-320.
- **High resolution.** $250\mu\text{m}$ tracks and spaces on typical thick film printers.

ElectradorTM ED4000 PRODUCT RANGE

ED4000	Surface resistance:	$40 \Omega \square^{-1}$
	Contact resistance:	$<3\Omega$

PROCESSING

PRINTING: 200 to 325 mesh stainless steel or 62T to 77T polyester mesh with a $13\mu\text{m}$ emulsion stencil.
Squeegee: 70 durometer.

CURING: Convection oven 35 to 40 mins at 95°C

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FINAL PROPERTIES

(12µm thick film overprinted on ED2000 with polyester substrate)

Resistance: Sheet resistance: **40 Ω□⁻¹** Contact resistance: <3Ω (12µm thickness)

Adhesion: X-hatch and tape - 100% adhesion

Hardness: 3H

Humidity: 200 hours at 65°C/85%RH - <5% change in resistance.

Maximum operating temperature: 70°C

VISCOSITY ADJUSTMENT:

If thinning becomes necessary due to evaporation loss with prolonged usage, then **ER17** should be used up to a maximum of 5%.

SCREEN CLEANING:

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



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