

Carbon based ink C 820 EI

APPLICATION

C 820 EI is a carbon filled electrically conductive and screen printable ink designed to offer a stretchable conductor. Typical application includes, but it is not limited to, conductive patches on TPU substrates.

Benefits

- high adhesion on different substrates including TPU and synthetic fabrics
- sheet resistance in the Ω/\square range
- good resistance to light discoloration
- compatible with wide variety of fabric and film substrates
- good print quality
- fast curing

PROCESSING

Printing

Stainless steel screen 230 – 280 mesh, polyester screen 77 to 99 wires. A polyurethane squeegee with a shore A durometer between 70 and 80 is recommended. Emulsion 20÷40 μm .

Curing conditions

5'-10' @ 125°C. Infra red drying can be successfully used.

Clean-up solvents

Diethylene glycol monoethyl ether acetate or DBEs

Thinning

Use thinner 0320IT to replace solvent or to dilute the ink. Higher percentage than 1% could affect sheet resistivity.

Table 1. TYPICAL INK PROPERTIES

Appearance	thick dark black ink
Viscosity ^{#1}	20 ÷ 30 Pa·s
Solid content	41 ± 2 %

Table 2. TYPICAL CURED PROPERTIES

Sheet resistivity (/square/mil)	< 60 Ω
Thickness	6÷10 μm
Soldarable	NO

#1 Viscosity test:

Brookfield DV-II+ Pro, 10rpm #14, 25±0.5°C

Electrically conductive ink Ag 520 EI

STORAGE AND SHELF LIFE

Min. 6 months when properly stored in tightly closed containers at room temperature (5-25°C). Some settling of solids may occur during storage and ink should be thoroughly mixed prior to use.

SAFETY AND HANDLING

For safety and handling information pertaining to C 820 EI, read the safety material data sheet (SDS).

DISCLAIMER

The data published in this document come from experiments carried out in our laboratories and performed in conditions believed to be the most commonly accepted by the industry. It is the end-user's responsibility to check whether this product can be efficiently used in his specific process and under his specific industrial conditions which Chimet SpA can neither control nor foresee. Chimet makes no warranties expressed or implied arising from the product use. Chimet SpA specifically disclaims any liability for consequential or incidental damages of any kinds, including lost profits.

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