

- **Electrical properties**
Sheet resistance $\approx 20 \text{ m}\Omega/\square$ printed with a polyester fabric with a mesh equal to 110 threads/cm
- **Applications**
Compatible with PVC
- **Major advantages**
Compatible with standard lamination processes of PVC involved in cards production, high conductivity.
- **Equipment**
Manual, automatic and semi-automatic machines

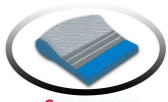


PRINTING CONDITIONS



Screens

All types of polyester fabrics can be used with a mesh equal to 110 threads/cm



Squeegees

Polyurethane A75 Shore minimum, minimal tilt, good sharpness



Packaging

Set of two polypropylene pots:

- Component A: dispersion of conductive particles:.....912.59 g
- Component B: Binder polymer gel:.....87.41 g



Dilution

The ink has been formulated in order to be easily prepared by mixing all of the components A and B. We recommend carrying out the mixture between A and B in container made of the same material as the storage pots (polypropylene).

Smaller volumes can be prepared provided the mass ratio of components A and B is respected. For example: 50 g of ink can be prepared mixing 45.63 g of component A with 4.37 g of component B. As copper coated with silver particles exhibit a high density, a sediment forms over time in component A. It has to be redispersed by stirring before being mixed with component B, especially if small volumes are prepared. In this case the redispersion step is mandatory in order to take volumes of compound A with homogeneous particle distribution and mass fraction



Cleaning

We recommend ethyl acetate as cleaning solvent



Storage

6 months in closed pots kept between +5°C and +35°C



Séchage

Patterns have to be placed in an oven at 50°C for 1h30. The drying time can be drastically reduced if the temperature is increased. The drying step can also be carried out at room temperature for 12h (in this case printed patterns have to be protected from dust).



Lamination

Once the drying step is achieved the printed patterns are laminated in a 5 step process under the following conditions:

- Step 1: Temperature 60° C, Pressure 20 PSI, Time: 55 sec
- Step 2: Temperature 60° C, Pressure 20 PSI, Time: 55 sec
- Step 3: Temperature 100° C, Pressure 20 PSI, Time: 60 sec
- Step 4: Temperature 140° C, Pressure 100 PSI, Time: 60 sec
- Step 5: Temperature 110° C, Pressure 150 PSI, Time: 40 sec



Handling

Open pots for sampling must be carefully closed as soon as possible. The mixture of the two components A and B can be kept 15 day in an airtight container



Hygiene and safety

Although the chemical compounds chosen for the formulation of our inks are not dangerous, they can produce allergic reactions in some particularly sensitive people. Ink or thinner stains on skin have to be washed immediately using soapy water. In all cases, please refer to our safety datasheets

Guarantee reserves

Although the data indicated in this document have been established after thorough tests, they are only given as an indication. VFP Company cannot be held responsible in any way, it being understood that we recommend making tests before starting any production run. No salesman, representative or agent is entitled to provide a guarantee or any insurance which might contradict the above statement. Please always refer to our general sale conditions.