

## PRODUCT INFORMATION SHEET

# Platinum Counter Electrode Paste

### Product description

This product is a screen printable platinum paste designed as a counter electrode in Dye-sensitized Solar Cells.

### Product Benefits

Suitable for high temperature treatment e.g. fusing cells with a glass frit up to 650 °C.

### Processing

Screen printing devices: semi-automatic, manual.

### Screen Type

Polyester screen. Recommended: 150 mesh/cm,  $d=30\ \mu\text{m}$ ,  $V_{th}=11\ \text{cm}^3/\text{m}^2$ .

### Typical Drying Conditions

Dry at 130 - 150°C for 10 - 15 minutes in a belt dryer.

### Typical Sintering Conditions

Sinter at about 450 °C, special application 650 °C.

### Substrate

TCO glass

### Physicochemical Properties

Charge Transfer Resistance  $R_{CT} \leq 1.5\ \text{Ohm}\cdot\text{cm}^2$ , sintered at 650 °C. Lower value is expected after firing at 450 °C. The electrolyte with 30 mM of tri-iodide in acetonitrile has been used to performed measurements.

Platinum loading  $\leq 15\ \mu\text{g}/\text{cm}^2$ .

### Storage

The product should be kept sealed, in its container, and stored at room temperature.

### Shelf Life

In a sealed container, the shelf life is minimum 6 months from dispatch.

### Safety and Handling

This paste is intended for lab use by trained personnel. Keep product container closed when not in use to prevent solvent evaporation and moisture contamination.



All values reported here are results of experiments conducted in our laboratories and are intended to illustrate the products performance.