

CP-005

Screen Print Copper Paste for PV Metalisation

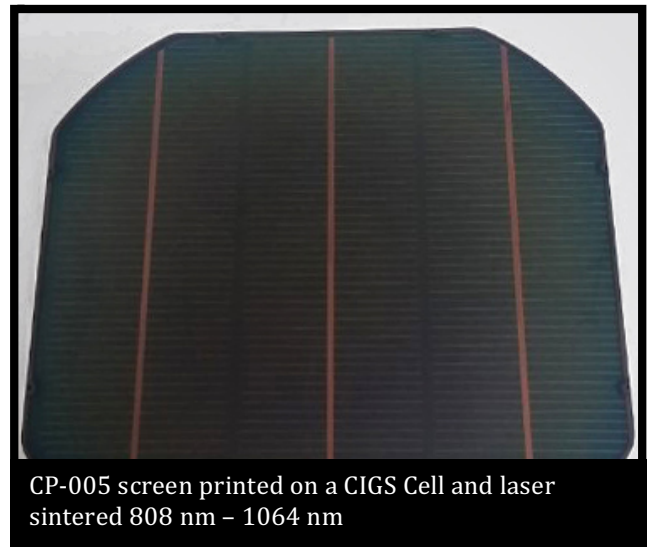
A nanocopper-based paste for printed electronics

Product Overview

CP-005 is a screen printable copper paste, suitable for metalisation for thin film solar cells

CP-005 is formulated to provide excellent conductivity and adhesion laser sintered by direct imaging at high speeds

Can be used on a variety of PV substrates including CIGS, CIS and other PV metalisation layers



Processing

Screen Printing Equipment	Flatbed (Both sheet and reel to reel)
Screen Type	Stainless steel mesh and polyester mesh
Line Thickness/Height (sintered)	Typically 15 µm (Depending on screen)
Line Width	Typically 125 µm
Ink on Screen (Printing Life)	>4 hours - (Depending on printing process)
Substrates	PV Metalisation, CIGS, CIS
Clean up solvent	Isopropanol, acetone
Diluent/Thinner	DT-001
Typical Drying Conditions	Can be dried in standard convection ovens and vacuum ovens @ 60°C 30–60 minutes, or Under IR dryer @ 80°C 15–30 minutes, or Forced air convection @ 80°C 15–30 minutes
Typical Sintering Conditions	Laser processing 808 nm – 1064 nm

Applications

CP-005 paste formulation is designed to be compatible for PV Metalisation.

This paste has been developed for high throughput screen printing in a production environment.

Not suitable for Silicon cells without a conductive barrier layer.

General Use, Storage and Shelf Life

The product should be kept sealed in its container and stored at room temperature (<25°C). The shelf life of unopened containers is six months from date of shipment.

Prior to use, please ensure that the paste is mixed thoroughly for a few minutes taking care to avoid introducing air to the paste.

Safety and Handling

For safety and handling information relating to the use of this product, please refer to the Safety Data Sheet (SDS).

Technical Support

Intrinsiq works closely with its customers to ensure this product is optimized for their process. For more product information or technical support, please contact your local representative.

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Typical Compositional properties

Solids content (Weight %)	~85%
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Viscosity [Pa.S] (Bohlin CVO 100 at 50 s ⁻¹ @ 25°C)	15-25
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Density [g/ml]	~3.5
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Typical Electrical & Physical Properties (Cured)

Sheet Resistance [mΩ/sq/25µm]	~20
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Adhesion (ASTM D3359)	5B
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Cured Thickness [µm]	10-25
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