

# CP-007

## General Purpose High Performance Copper Paste

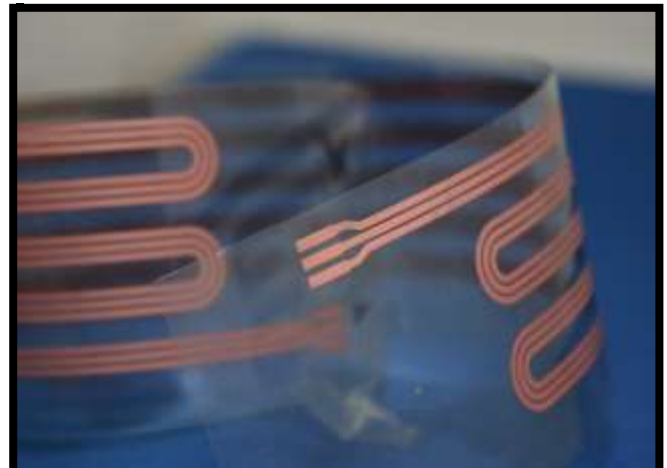
*A nanocopper-based paste for printed electronics*

### Product Overview

CP-007 is a screen printable copper paste, suitable for fine line, high resolution printing

CP-007 is formulated to provide excellent conductivity, flexibility and adhesion at processing temperatures compatible with PET

Can be used on a variety of other substrates including ceramic, FR4, fabrics and TCO-coated glass



CP-007 printed on PET, after a reducing formic acid/argon atmosphere processed @180°C / 1 Hour

### Processing

<b>Screen Printing Equipment</b>	Flatbed (Both sheet and reel to reel)
<b>Screen Type</b>	Stainless steel mesh and polyester mesh
<b>Line Thickness/Height</b>	5µm – 50µm (Depending on screen)
<b>Line Width</b>	75µm minimum
<b>Ink on Screen (Printing Life)</b>	>5 Hours – (Depending on printing process)
<b>Substrates</b>	PET , ceramic, FR4, TCO-coated glass and fabrics
<b>Clean up solvent</b>	Acetone, isopropanol
<b>Diluent/Thinner</b>	DT-002
<b>Typical Drying Conditions</b>	Can be dried in standard convection ovens and Vacuum ovens @ 60°C 30 – 60 minutes Under IR Dryer @ 80°C 30 minutes Forced air convection @ 80°C 4 – 15 minutes
<b>Typical Sintering Conditions</b>	Formic acid reducing atmosphere @ 170°C – 210°C for 1 hour. (Convection oven) Formic acid reducing atmosphere @ 190°C for 30 minutes. (Heller Industries conveyor)

## Applications

CP-007 paste formulation is designed to be compatible with PET. The paste can also be used with a variety of other substrates common in industries such as automotive, aerospace and consumer products. Applications include:

- LED Lighting
- Microelectronics
- Membrane switches
- Sensors & Antennas

## 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

<b>Solids content</b> (Weight %)	~77%
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<b>Viscosity [Pa.S]</b> (Bohlin CVO 100 at 50 s <sup>-1</sup> @ 25°C)	20 – 35
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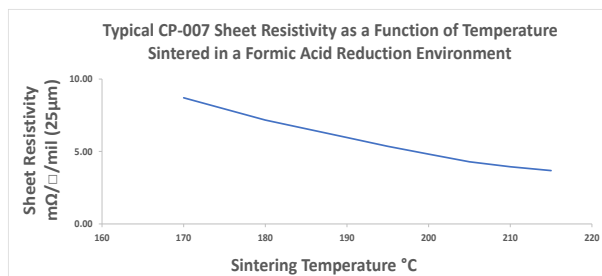
<b>Density [g/ml]</b>	~2.6
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## Typical Electrical & Physical Properties (Cured)

<b>Sheet Resistance</b> [mΩ/sq/25μm]	~7
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<b>Adhesion</b> (ASTM D3359)	5B
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<b>Cured Thickness [μm]</b>	>5 – <50
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Results are averages of prints 10μm height on PET ST505 where adhesion is consistently 5B. (ASTM D3359)

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