

## Metalon<sup>®</sup> Conductive Inks for Printed Electronics

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### Metalon<sup>®</sup> CP-008

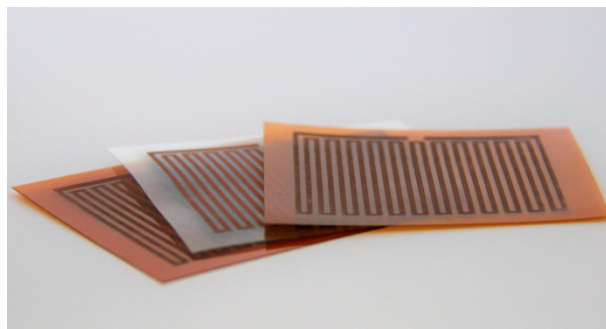
#### High Copper Low Temperature Paste

##### Product Overview

CP-008 is a screen printable copper paste suitable for fine line, high resolution printing. CP-008 is formulated to provide excellent conductivity and adhesion at processing temperatures as low as 140° C. CP-008 can be used on a wide variety of substrates including PET (Melinex ST506), glass, surface treated LCP, Ultem, polyimide and silicon nitride.

##### Applications

CP-008 paste formulation is designed to allow sintering at temperatures as low as 140° C. The extended sintering latitude makes it compatible with PET and a wide range of substrates from glass to low temperature epoxies and ITO coated substrates. Applications include: LED lighting, microelectronics, and displays & sensors.



CP-008 printed on PET & polyimide after a reducing formic acid/argon atmosphere processed @ 150°C / 1 hour

##### 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, please refer to the Material Safety Data Sheet (MSDS).

<b>Typical Compositional Properties</b>	<b>Solids Content</b> (Weight %) ..... ~ 88%
	<b>Viscosity [Pa.S]</b> (Anton Paar MCR-301 at 50 <sub>s</sub> <sup>-1</sup> @ 25°C) ..... 20 – 40
	<b>Density [g/ml]</b> ..... ~ 3.9
<b>Typical Electrical &amp; Physical Properties (Sintered)</b>	<b>Sheet Resistance</b> [mΩ/sq/25μm] ..... ~ 10
	<b>Adhesion</b> (ASTM D3359)..... 5B
	<b>Sintered Thickness [μm]</b> ..... 10 – 15

Contact us today to learn more.

For detailed application information or additional assistance: [inktechnicalsupport@novacentrix.com](mailto:inktechnicalsupport@novacentrix.com)  
Ink can be ordered at [store.novacentrix.com](http://store.novacentrix.com)



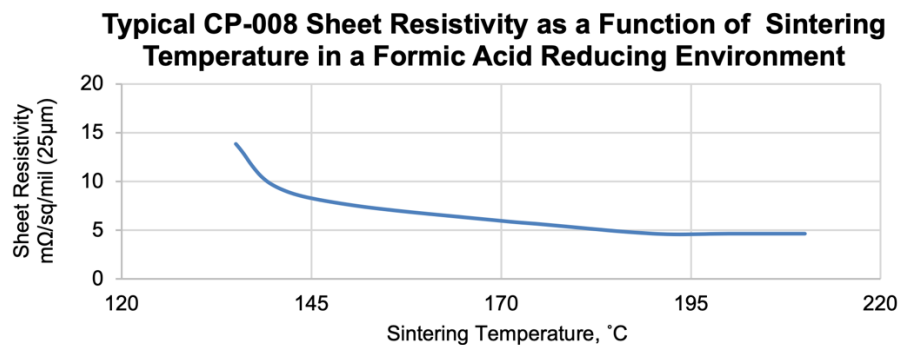
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<b>Processing</b>	<b>Printing Equipment</b>	Flatbed Screen Printing <i>(both sheet and reel-to-reel)</i> Micro Dispense <i>(nozzle deposition)</i>
	<b>Screen Type</b>	Stainless steel mesh and polyester mesh
	<b>Nozzle Type</b>	High pressure deposition tool <i>(e.g. nScript)</i>
	<b>Line Thickness/Height</b> <i>(sintered)</i>	15 μm – 30 μm <i>(depending on deposition process)</i>
	<b>Line Width</b>	50 μm minimum <i>(depending on deposition process)</i>
	<b>Ink on Screen (Printing Life)</b>	> 5 hours
	<b>Substrates</b>	PET, glass, surface treated LCP, FR4 and low temperature epoxies, Ultem, polyimide, silicon nitride and ITO coated substrates
	<b>Clean up solvent</b>	Acetone, isopropanol
	<b>Diluent/Thinner</b>	Terpineol
	<b>Typical Drying Conditions</b>	Can be dried in standard convection ovens and vacuum ovens @ 60°C, 30 – 60 minutes  IR dryer @ 80°C, 30 minutes
	<b>Typical Sintering Conditions</b>	Forced air convection @ 80°C, 15–30 minutes  Formic acid reducing atmosphere @ 140°C – 260°C for 1 hour down to 15 minutes
	<b>Shipping and Packaging</b>	Standard sample order is 100g or multiples of 100g. Bulk packaging is also available.



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