

Metalon[®] Conductive Inks for Printed Electronics

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Metalon[®] CP-008

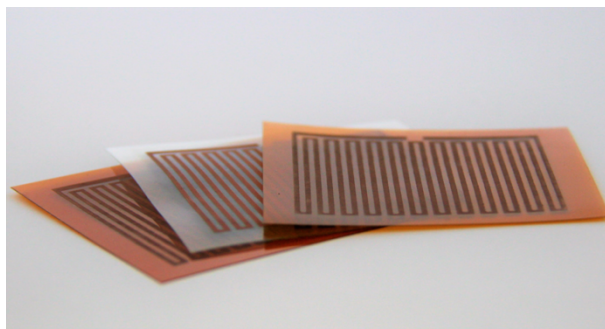
High Copper Low Temperature Paste

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).

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

Contact us today to learn more.

For detailed application information or additional assistance: inktechnicalsupport@novacentrix.com
 Ink can be ordered at store.novacentrix.com

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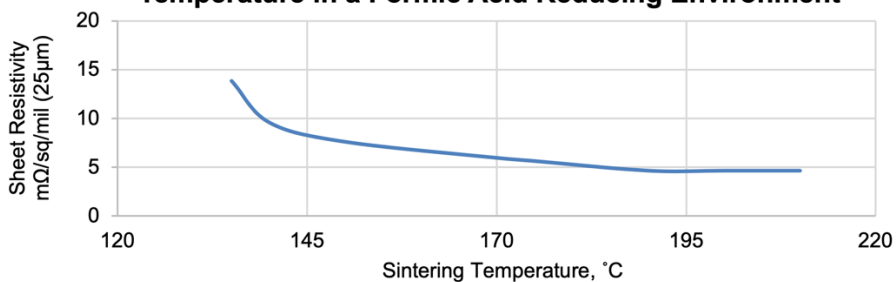
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Processing	Printing Equipment	Flatbed Screen Printing <i>(both sheet and reel-to-reel)</i> Micro Dispense <i>(nozzle deposition)</i>
	Screen Type	Stainless steel mesh and polyester mesh
	Nozzle Type	High pressure deposition tool <i>(e.g. nScript)</i>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

Typical CP-008 Sheet Resistivity as a Function of Sintering Temperature in a Formic Acid Reducing Environment



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