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A PEN Inc company

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Materials for Printed Electronics

ANI Catalog #	Description
Cu-IJ70-XX	Cu-IJ70-30 is a copper nanoparticle ink suitable for printing highly conductive lines and patterns for applications in the printable electronics and PCB industry. Optimized for piezoelectric inkjet heads. Cu-IJ70 can be printed and sintered to form conductive patterns on flexible substrate materials such as polyimide, liquid crystal polymer (LCP), and certain coated papers. XX = the percent of Cu loading. Cu-IJ70-50 is 50% Cu loading. Cu-IJ70-30, Cu-IJ70-40 and Cu-IJ70-50 are our standards, Cu-IJ70-50 is typical.
Cu-IJ70-W	Cu-IJ70-W is a water-based version of our copper nanoparticle ink that is designed for thermal inkjet heads. Cu-IJ70-W can be printed and sintered to form conductive patterns on flexible substrate materials such as polyimide, liquid crystal polymer (LCP), and certain coated papers. 30% Cu loading.
CuNi-IJ5050 and CuNi-IJ5545	ANI's CuNi-IJ5050 is a CuNi alloy (50/50) ink suitable for printing lines and patterns useful for printed resistors, strain gauges, thermopiles and thermocouple applications. CuNi-IJ5545 is a CuNi alloy (55/45) ink with a ratio similar to Constantan. CuNi-IJ can be printed and cured to form conductive patterns on substrates such as silicon, ceramics and Kapton. These inks contain copper-nickel alloy nanoparticles ranging in size from 20-40nm. These inks are solvent-based and can be printed by inkjet printing and aerosol jet printing techniques. Printed copper-nickel alloy ink on plastic substrates can be photosintered in atmosphere to produce conductive copper-nickel alloy traces.
Cu-PS70	Cu-PS70 is a copper nanoparticle paste suitable for patterning highly conductive lines for applications in the printable electronics and PCB industry. Cu-PS70 provides excellent electrical properties on silicon, and polyimide substrates. Cu-PS70 is an excellent replacement for silver based conductors. 60-80% Cu loading.
Cu-PM530	Cu-PM530 micro copper paste is formulated for screen printing techniques. The Cu-PM530 paste is designed for flexible substrates commonly used in printed electronics. Examples substrates include PET, Paper, Polycarbonate, ABS and FR4 composite materials. The micro copper paste provides excellent electrical properties and is an excellent replacement for silver based conductors.
Ni-IJ70-30	Ni-IJ70-30 is a nickel nanoparticle ink suitable for printing highly conductive lines and patterns for applications in the printed electronics and solar industry. Ni-IJ70 can be printed and sintered to form conductive patterns on substrates such as silicon and polyimide. Ni-IJ70-30 can be printed by inkjet and aerosolized jet techniques. 30% Ni loading.
Al-PS1000	Al-PS1000 aluminum paste is formulated for screen printing techniques. The aluminum paste is designed for silicon wafer-based photovoltaic applications. The aluminum paste has low contact resistivity on silicon. Additionally, Al-PS1000 will form a highly uniform Back Surface Field (BSF) layer. Al-PS1000 paste is lead and cadmium free.
Al-PS4020	Al-PS4020 aluminum alloy paste is formulated for screen printing techniques. The aluminum alloy paste is designed for low-temperature processing of silicon photovoltaic devices. Al-PS4020 shows low contact resistivity on n-type and p-type Si solar cells.
Al-IS1000	Al-IS1000 aluminum ink is formulated for non-contact printing techniques, such as spray and aerosolized jet printing. The aluminum ink is designed for silicon wafer-based photovoltaic applications. The aluminum ink has low contact resistivity on silicon. Additionally, Al-IS1000 will form a highly uniform Back Surface Field (BSF) layer. Al-IS1000 ink is lead and cadmium free.
Ag-IJ20	Ag-IJ20 is a silver nanoparticle ink suitable for drop on demand printing highly conductive lines and patterns for applications in the printed electronics industry. Ag-IJ20 ink can be thermally sintered at low temperatures on PET and special papers.
Ag-PM100	Ag-PM100 is a silver paste suitable for contact printing highly conductive lines and patterns for applications in the printed electronics industry. Ag-PM100 paste can be thermally sintered at low temperatures on glass, PET and polyimide substrates.
Ag-PV8000	Ag-PV8000 is a silver paste suitable for forming low electrical contact for conventional silicon solar cells. Ag-PV8000 paste can be co-fired with commercially available backside Aluminum pastes and tapping silver pastes.
Ag-ST500 NEW	ANI's Ag-ST500 is an epoxy-based conductive silver paste (160-250 Pa*s) designed to make low electric contact and provides excellent conductivity (30 μΩ-cm) and high peel strength (adhesion > 2 N/mm). This paste is able to print fine lines (30 μm wide) and can be cured at temperature below 250°C.
XX-YY	Please contact us for your custom ink formulation needs.