



Metalon® Conductive Inks for Printed Electronics

www.novacentrix.com

Metalon® HPS-U11-BC / U11-BC-LV High Conductivity Silver Screen Ink

- Particle:** 80 nm silver particles
- Substrates:** Paper, plastics, glass, metals
- Features:**
- Very high conductivity for low temperature curing
 - Excellent water and alcohol resistance
 - Fine line printing
 - Flexible and good adhesion to a variety of substrates
 - Printing equipment cleans with isopropanol
 - Lower Ag concentrations available for lower viscosity applications

Thermal cure data:

Substrate	Cure Temperature ¹ (°C)	Volume Resistivity ² (Ω-cm)	Sheet Resistivity ² (Ω/sq/mil)
PET - Melinex ST505	100	5.8E-05	0.0226
	120	1.5E-05	0.0059
	140	6.9E-06	0.0027
Polyimide – Kapton HN	150	5.6E-06	0.0022
	175	4.6E-06	0.0018
	200	4.5E-06	0.0018
	225	4.5E-06	0.0018
	250	4.1E-06	0.0016

¹Pre-cure drying at 140C for 10 minutes for cure ≥ 175C, ²Typical value based on #10 drawdown and 25% porosity, typical dried coating 0.003g/cm²

Physical Properties	General Description	Ag nanoparticle ink in butyl carbitol
	Viscosity (typical values)	275,000 cP at 10sec ⁻¹ , 40,000 cP at 100 sec ⁻¹ (U11-BC) 140,000 cP at 10sec ⁻¹ , 25,000 cP at 100 sec ⁻¹ (U11-BC-LV)
Storage and Printing	Specific Gravity	3.5
	Flash Point	Non-flammable
	Particle Size	D50: 80 nm
	Ag Content	80% w/w (U11-BC); 76.5% w/w (U11-BC-LV)
Shipping and Packaging	Storage	Room temperature
	Shelf life	>6 months
	Cleaning solvent	Isopropanol
	Screen mesh material	Stainless steel or polyester
	Screen mesh count	400 to 80 wires per inch
Standard sample order is 100g or multiples of 100g. Inquire directly for packaging of larger quantities.		