



Sicrys™ Silver and Copper Viscous Conductive Inks for LIFT (Laser Induced Forward Transfer)

Ink properties	P75DB-1	PC60DB-1
Metal	Silver	Copper
Metal Loading (% w/w)	75%	60%
Main Solvent ¹	DGBE	DGBE
Typical Viscosity @ 25°C (cP)		
Shear rate 1/s -	62000	32000
Shear rate 1000/s -	300	160
Surface Tension (dyn/cm) (Pendant Drop method)	28	26
Evaporation Rate @ 25°C (% weight/time)	1.2%/1h (10 µm layer)	2%/1h (10 µm layer)
Resistivity (µΩcm) (Laser sintering, line 1-2 µm thick, glass or plastic substrate)	≤ 8 (≤ 5 bulk)	≤ 5 (≤ 3 bulk)
Sheet Resistance (mΩ/□) (thickness, µm)	80 (1 µm)	50 (1 µm)
Substrate Adhesion ³ (tested) ⁴	Plastics, SU8	Plastics, SU8
Compatible Printing Systems	Different laser systems (UV, Vis, IR)	
Shelf life: 12 months. Storage at room temperature. No need to stir the inks. Copper ink: storage under Argon. Copper ink can be exposed to air for short periods of time (minutes), refill the bottle with Argon every time the bottle is opened.		
¹ - Solvent: DGBE - diethylene glycol butyl ether		
³ - Adhesion depends on substrate, sintering conditions, substrate pretreatment and pattern thickness (tested according to ASTM-3359-09 or ISO-2409)		
⁴ - Substrates listed here were tested and perform well. Other substrates may also be applicable.		

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