



Sicrys™ Silver Digital Conductive Inks

	Product name	I30EG-1	I50T-13	I40DM-106	I50DM-106	I60PM-116	I50TM-119
Solvent	Solvent	EG	TPM	DGME	DGME	PM/DGME	TGME
	Viscosity @ 25°C (cP)	17.1	5.5	3.5	3.5	1.7/3.5	6.2
	Surface tension (dyne/cm)	48	30	34.6	34.6	27.7/34.6	36.4
	Evap. Rate @ 25°C (nBuAc=1)	0.01	0.0026	0.019	0.019	0.62/0.019	<0.01
Ink	Solids (metal content)	30%	50%	40%	50%	60%	50%
	Viscosity @ 25°C (cP)	28	26	11	20	26	34
	Surface tension (dyne/cm)*	46	28	33	34	23	30
	Evaporation rate @ 50°C (% solvent/time)**	4%/5 min 8%/20 min	2%/5 min 5%/20 min		50%/5 min 90%/20 min	67%/5 min 97%/20 min	15%/5 min 18%/20 min
	Sedimentation rate (µm/sec) (T=10%; Lumisizer®)	0.25	0.27	0.66	0.37		0.24
	Open time (min) (jetting temperature, °C)		>60 min (35°C)	10 min (30°C)	1.5 min (40°C) 10 min (30°C)		10 min (35°C)
	Resistivity (µΩcm) (thermal sintering, °C, min)	≤ 10 (180,30) ≤ 14 (150,30)	≤ 10 (200,30) ≤ 24 (150,30)	≤ 10 (150,30) ≤ 12 (130,30)	≤ 10 (150,30) ≤ 12 (130,30)	≤ 10 (130,60)	≤ 10 (150,30) ≤ 12 (130,30)
	Sheet resistance (mΩ/□) (thickness, µm)	100 (1 µm) 25 (4 µm)	100 (1 µm) 25 (4 µm)	10 (10 µm)	10 (10 µm) 102 (1.5 µm) [#]		30 (3.5 µm) 15 (8 µm)
	Substrate adhesion tested***	Kapton, PC, PEN, LCP, glass	PC, PEN, PET	ITO, glass	ITO, glass	Kapton, PC, PA, PC/ABS, glass	Kapton, FR4, PC, PET, ITO, glass
	Compatible printheads	KM1024 KM1024i Ricoh E3 DMC-11610 Air Brush	KM1024 KM1024i Ricoh E3 DMC-11610 Sapphire QS-10pl	KM1024 KM1024i Ricoh E3 DMC-11610 Samba	KM1024 KM1024i Ricoh E3 DMC-11610 SapphireQS-10pl	Air Brush	KM1024 KM1024i Ricoh E3

Solvents: EG - ethylene glycol, TPM - tripropylene glycol monomethyl ether, DGME - diethylene glycol monomethyl ether, PM - propylene glycol monomethyl ether, TGME - triethylene glycol monomethyl ether.

Notes: * - Surface tension measured with Pendant Drop method; ** - Evaporation rate of ink estimated using internal procedure; [#] - Laser sintering;

*** - Adhesion depends on substrate, sintering conditions, substrate pretreatment and pattern thickness (tested according to ASTM-3359-09 or ISO-2409)

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