

Sicrys™ Silver Digital Conductive Inks for General Purpose

Ink properties	I20DM-206	I40DM-106	I50DM-106	I50TM-115	I50TM-119	I50T-13	I30EG-1	I60PM-116
Metal Loading (% w/w)	20%	40%	50%	50%	50%	50%	30%	60%
Main Solvent ¹	DGME	DGME	DGME	TGME	TGME	TPM	EG	PM/DGME
Typical Viscosity @ 25°C (cP)	5	11	20	37	34	26	28	26
Surface Tension (dyn/cm) (Pendant Drop method)	34	34	34	36	29	26	47	23
Open Time ² (jetting temperature, °C)	15 min (25°C)	10 min (30°C)	10 min (30°C)	30 min (40°C)	10 min (35°C)	60 min (35°C)	5 min (35°C)	
Resistivity (μΩcm) (thermal sintering, °C, min)	≤ 10 (150,30) ≤ 12 (130,30)	≤ 10 (150,30) ≤ 12 (130,30)	≤ 10 (150,30) ≤ 12 (130,30)	≤ 10 (150,30) ≤ 12 (130,30)	≤ 10 (150,30) ≤ 12 (130,30)	≤ 10 (200,30) ≤ 24 (150,30)	≤ 10 (180,30) ≤ 14 (150,30)	≤ 10 (130,60)
Sheet Resistance (mΩ/□) (thickness, μm)	10 (10 μm)	10 (10 μm)	10 (10 μm)	100 (1 μm) 20 (4 μm)	30 (3.5 μm) 15 (8 μm)	100 (1 μm) 25 (4 μm)	100 (1 μm) 25 (4 μm)	
Substrate Adhesion ³ (tested) ⁴	ITO, Glass	ITO, Glass	ITO, Glass	ITO, Glass, PET, PC	Kapton®, FR4, PET, PC, ITO, Glass, CTO	PC, PEN, PET	Kapton®, PC, PEN, LCP, Glass	Kapton®, PC, PA, PC/ABS, Glass
Compatible Printing Technologies	Inkjet	Inkjet	Inkjet	Inkjet	Inkjet	Inkjet	Inkjet, Aerosol	Aerosol
Compatible Printheads (tested) ⁴	Epson DemonJet Desktop printers	KM1024 KM1024i Ricoh E3 DMC-11610 Samba	KM1024 KM1024i Ricoh E3 DMC-11610 SapphireQS-10pl	KM1024 KM1024i KM512 Ricoh E3 SapphireQS-10pl	KM1024 KM1024i Ricoh E3	KM1024 KM1024i Ricoh E3 DMC-11610 SapphireQS-10pl	KM1024 KM1024i Ricoh E3 DMC-11610 Aerosol	Aerosol (pneumatic) atomizer)

Shelf life: 12 months. Storage at room temperature. No need to stir the inks.

¹ - Solvents: DGME - diethylene glycol methyl ether, TGME - triethylene glycol methyl ether, PM - propylene glycol methyl ether, EG - ethylene glycol, TPM - tripropylene glycol methyl ether

² - Ricoh E3 printhead

³ - Adhesion depends on substrate, sintering conditions, substrate pretreatment and pattern thickness (tested according to ASTM-3359-09 or ISO-2409)

⁴ - Substrates and printheads listed here were tested and perform well. Other substrates and compatible printheads may also be applicable.

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