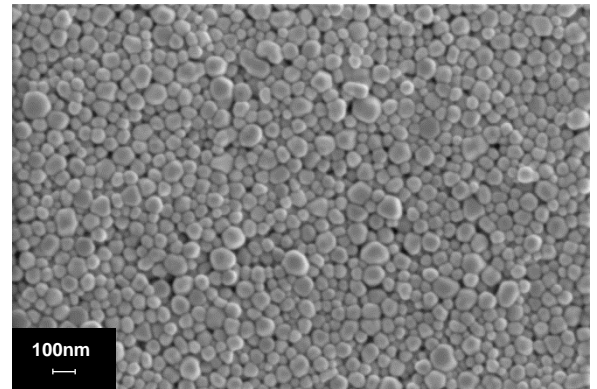


General Information

Sicrys™ I40TM-106, a conductive ink based on single-crystal silver nanoparticles in diethylene glycol monomethyl ether (DGME), is designed for digital Inkjet printing including SAMBA™ FUJIFILM Dimatix printhead. The ink offers low viscosity, long shelf life, storage at ambient conditions, robust jetting and good printability. Printed patterns, sinterable at low temperatures, provide low electrical resistivity and good adhesion to a wide range of substrates.

Ink Properties

Properties	Typical Values
Metal Loading, Ag (w/w)	40 %
Particle Size (Lumisizer®)	d50 = 80 nm d90 = 115 nm
Specific Gravity (Calculated)	1.62 g/ml
Viscosity (Brookfield, Cone Spindle 42, 25°C)	11 cP
Surface Tension (Du Noüy Ring Method)	31 dyne/cm
Particle Size and Morphology (HRSEM)	See HRSEM image



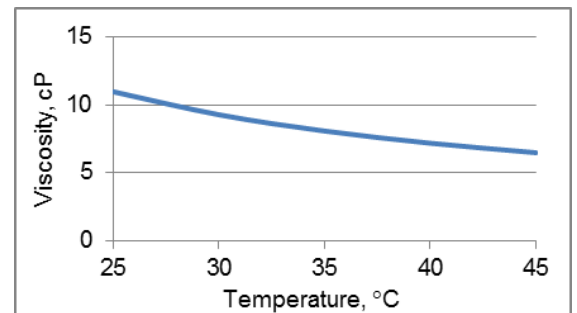
Nano Ag, HRSEM Image, x100,000

Electrical and Adhesion Properties

Substrates: glass, ITO

Sintering Profile	Resistivity (4PP)	Sheet Resistance
150°C/30min	≤10 μΩ-cm (≤6.3 bulk)	9 mΩ/□ (10 μm)
130°C/30min	≤12 μΩ-cm (≤7.5 bulk)	11 mΩ/□ (10 μm)

Adhesion (ASTM 3359-09)	Rating
ITO, Glass, PET	5B



Viscosity Profile

Product Applications

Digital Printing (Inkjet)

Printed Electronics: FPD, RFID, PCB

