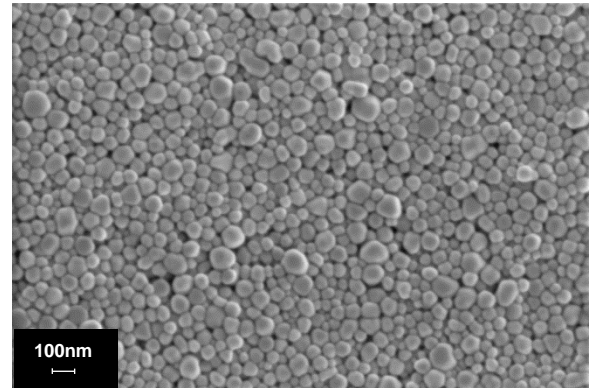


## General Information

Sicrys™ I50TM-115, a conductive ink based on single-crystal silver nanoparticles in triethylene glycol monomethyl ether (TGME), has been designed for inkjet printing and low temperature sintering applications. The ink offers a unique combination of properties, including high silver loading, low viscosity, storage at ambient conditions, long shelf life, reliable jetting with high open time, 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)	50 %
Particle Size (Lumisizer®)	d50 = 80 nm d90 = 120 nm
Specific Gravity (Calculated)	1.93 g/ml
Viscosity (Brookfield, Cone Spindle 42, 25°C)	37 cP
Surface Tension (Du Noüy Ring Method)	33 dyne/cm
Particle Size and Morphology (HRSEM)	See HRSEM image



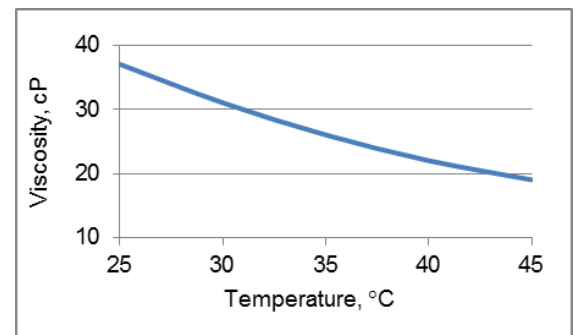
Nano Ag, HRSEM Image, x100,000

## Electrical and Adhesion Properties

Substrate	Sintering Profile	Resistivity (4PP)
ITO	150°C/30 min	≤10 μΩ·cm (≤6.3 bulk)
PET	130°C/30 min	≤12 μΩ·cm (≤7.5 bulk)

Substrate	Sintering Profile	Sheet Resistance
ITO	150°C/30min	100 mΩ/□ (1 μm)
ITO	150°C/30min	20 mΩ/□ (4 μm)

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



Viscosity Profile

## Product Applications

Digital Printing (Inkjet)  
Printed Electronics: FPD, RFID, PCB

