

# Ag nano ink material for 3DPrinted electronics

## Material design

A silver nano-ink which is sintered at 80 °C and made of Ag nanoparticles that are 40nm and 130nm in diameter and in which a special dispersion stabilizer is used.



## Features

OAG-シリーズ	
<b>Ag content</b>	<b>20-85wt%</b>
<b>Viscosity</b>	<b>4-3000 mPa·s</b>
<b>Storage stability</b>	<b>&gt;2 month@23°C</b>
<b>Sintering condition</b>	<b>80°C/30 min-</b>
<b>Volume resistivity</b>	<b>6 <math>\mu\Omega\cdot\text{cm}</math>(80 °C) 4 <math>\mu\Omega\cdot\text{cm}</math>(100 °C)</b>
<b>Substrate</b>	<b>PC,PET, PP, Si, Glass</b>

Possible from low concentration to high concentration

High stability at room temperature

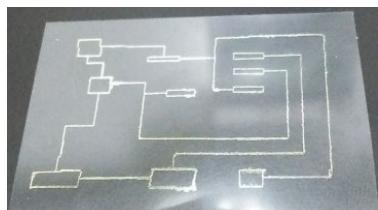
Curable at low temperatures and low resistance

Pretreatment of base material is not required

## Coating Process

### Application to 2D structures

#### -Inkjet



- Inkjet process on PET film

#### -Aerosol jet



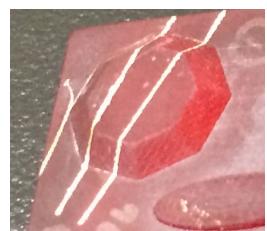
AJ-300 (Optomec)

#### -Gravure



- Smartlabo-III (komura-tec)

### Application to 3D structures



- Inkjet process on 3Dprint model