



# ChemCubed Jettable Solutions™

# ElectroJet™

## MULTI-LAYER, MULTI-MATERIAL ADDITIVELY PRINTED SOLUTIONS FOR TOMORROW'S ELECTRONICS

### Silver Conductive Inks

- Highest conductivity @ near bulk silver

**Resistivity in range of  $10^{-8}$  Ohm\*M**

- Lowest sintering temperature

As low as 80°C

- Particle-free based formulation for long-term jetting performance

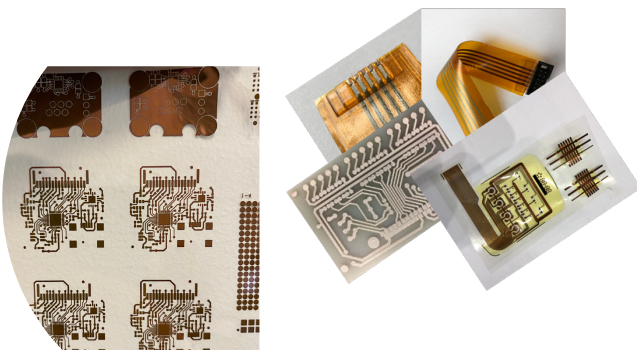
No clogged heads

- Compatible with ElectroJet brand printer and other jettable technologies

E.g. piezo, aerosol

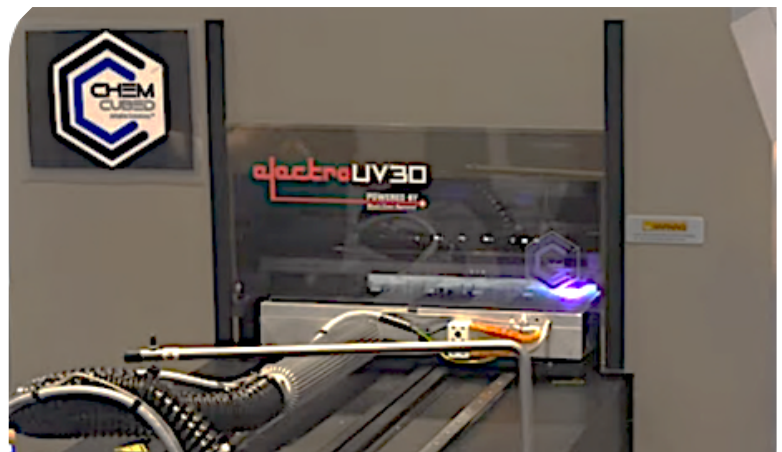
- Flexible and non-brittle

Excellent elongation



### Dielectric Insulating Inks

- Fully compatible with silver inks for optimized adhesion, print resolution and insulation between conductive trace layers
- UV curable technology suitable for building 3D printed structures
- Compatible with ElectroJet™ brand printer and other UV LED inkjet technologies
- Multiple dielectric formulations for numerous applications





## ElectroJet™ Product Reference Specifications

### CONDUCTIVE, DIELECTRIC, PRIMER, AND SECURITY MARKING MATERIALS

Product Name	Description	Key Features	Resistivity	Sintering Temperature
C3-Ag-1037-2	Ethanol-based silver conductive Ink	Low sintering temperature particle-free silver conductive material formulated for piezo inkjet heads	Range $10^{-8}$ $\Omega \cdot M$	80
C3-DI-7	Dielectric Insulating Ink (UV Curable)	Insulation/building material with excellent adhesion promotion for substrates and compatibility with silver conductive material	$3.3 \times 10^{13}$ $\Omega \cdot cm$	UV
C3-DI-8	Dielectric Insulating Ink (UV Curable)	Insulation/building material for interlayer insulation optimized for flexible circuitry and compatibility with silver conductive material	$3.3 \times 10^{13}$ $\Omega \cdot cm$	UV
C3-OPT-7	Dielectric Insulating Ink (UV Curable)	Transparent insulating/building material with excellent insulating properties for higher voltage and compatibility with silver conductive material	$3.3 \times 10^{13}$ $\Omega \cdot cm$	UV
C3-SMR-7	Solder Mask Ink (UV Curable)	Colored solder mask ink material with excellent adhesion properties for wave solder process (Red color, other colors optional)	N/A	UV
C3-SEC-7	Security Marking Ink (UV Curable)	Transparent ink material for invisible image printing when used in conjunction with DI-8 or OPT-7 insulating inks, UV detection	N/A	UV
C3-PR-3	Substrate Primer	Specialized primer solution for wiping pre-treatment of high surface energy substrates to optimize adhesion of direct print silver conductive ink	N/A	N/A
C3-HPD-3	High Performance dielectric used in conjunction with C3-DI-7	Makes DI-7 three times stronger, withstand much higher temperature, dramatically small Coefficient of thermal expansion (CTE) with a lower dielectric constant	N/A	UV