

Voltera Conductor 2 (1000388)

Description

Voltera Conductor2 ink is our second-generation ink that allows for higher conductivity, adhesion strength, and more robust riveting.

Application Notes

Curing

For best results, follow recommendation in Table 4.

For curing on the V-One, use automatic bake cycle. Invert the substrate on the baking ledges of the clamps. For a box oven, cure right-side up at 190°C.

Soldering

Use SMD291 flux. For best results, burnish before soldering for 20[s] with supplied abrasive burnishing pad.

180°C – excellent solderability and rework.

Recommended Substrates

- Fibreglass-epoxy or epoxy laminates (FR4, FR1), bare or soldermask-coated
- Glass (untreated, no coating)

Design recommendations

For circuit board applications with the standard 250µm nozzle, consider these design recommendations:

- Minimum IC pin-to-pin pitch: 0.65 [mm]
- Minimum 2-terminal package: 0402 (imperial)
- Minimum tracewidth: 8 mil/ 200 [µm] (recommend 10mil)

Safety and Handling

See MSDS for safety, handling, and disposal information.

Table 1: Physical & Electrical Properties (Post-cure)

Test	Value
Sheet Resistance: (50µm film thickness)	2.05 [mΩ/sq]
Resistivity (4-point-probe):	1.265×10^{-7} [Ω.m]
Typical cured film thickness:	50 [µm]
Film shrinkage, post-cure:	N/A
*Bend radius at fracture:	N/A
Adhesion (crosshatch tape test):	No transfer

*Test fracture on 5mil polyimide

Table 2: Composition Properties

Test	Value
Density:	3.35 [g/mL]
Clean-up solvent:	Isopropyl Alcohol (99%)

Table 3: Printing Properties (Printed on FR4)

Test	Value
Trace spread after print:	< 20%
Recommended Nozzle ID:	150 – 225 [µm]
Typical Line Width:	6-10 [mil] 150-250 [µm]
** Typical Print Height:	50 – 100 [µm]
** Typical Feedrate:	300 – 500 [mm/min]
** Typical Kick:	0.35 [mm]

** V-One specific settings

Table 4: Processing Parameters

Test	Value
Curing:	30 [min], 210°C
Compatible solder:	SnBiAg ₁ SnBiAg _{0.4} Sn ₆₂ Pb ₃₆ Ag ₂
Typical Print Height:	50 – 100 [µm]
Typical shelf life:	6 months, unopened
Storage:	4 – 10°C, sealed container.