FE3124-LV

Flexible Conductive Trace

Product Description

ACI FE3124-LV is a silver filled flexible conductive trace for use on PET, polyimides, and other bendable substrates. FE3124-LV has lower viscosity than FE3124, adjusted to a level appropriate for typical screen printing applications. For those looking for absolute minimal slump or to adjust solids themselves specifically for their process use FE3124. FE3124-LV has excellent adhesion to PET and maintains flexibility after cure to accommodate various packaging form-factors and use cases. The ink has good conductivity and is fully compatible with other products in ACI's flexible electronics platform.

Product Benefits

- Low cure temperature (80°C) good for temperature sensitive materials and components.
- Limited resistivity change associated with bending and flexing.
- Excellent adhesion to PET and polyimide.
- Screen printable for volume applications.
- Fully compatible with ACI's flexible adhesives and encapsulants.

Typical Performance	
Volume Resistivity 120°C for 15 min in box oven	< 0.010 Ω/square/mil < 2.5 x 10^{-5} Ω*cm
Resistance Change after 10,000 cycles at 1mm radius[1]	<5%
Adhesion[2]	5B
Typical Properties	
Physical State	Paste
Color	Silver
Viscosity[3]	15 Pa·s
Density	2.9 g/mL
Percent Solids[4]	>81%
Shelf Life 15 – 25°C	12 Months
Typical Processing Parameters	
Deposition Methods[4]	Dot Dispensing \ Syringe \ Screen \ Stencil
Curing Time and Temperatures	15 min box oven ≥ 120°C <5 min in industrial conveyor oven at ≥120°C
Recommended Screen Mesh	230.0011" / 360.0006" cal
Recommended Cured Thickness	8 – 12 µm
Coverage	19 m2/kg
Recommended Thinner/ Diluent	ACI FE8107
Clean up	Acetone / MEK / Similar Solvents

[1] 180° bend, 1 mm radius on YUASA DMLHP-FS.
[2] ASTM D3359 Method.
[3] Anton Paar MCR302 10 s^{-1} at 25°C.
[4] 150°C for 120 minutes in box oven
[5] Recommend DAC mixing prior to screen printing.

ACI MATERIALS

FE3124-LV

Flexible Conductive Trace

Contact ACI

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Caution

Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapors emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate SDS information.

Disclaimer

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