



### **Product Description**

FE1101 is one-part conductive epoxy. It cures at temperatures as low as 70 °C making it is well suited for the substrates with low temperature requirements such as polyester and TPU. FE1101 is compatible ACI inks and encapsulants and is optimized for use in rigid-flex circuits. As a one-part system FE1101 has a pot life of over a month at 20 °C allowing for large batch long production runs to be done with no change in viscosity or throughput.

# **Product Benefits**

- Pot life greater than 10 days < 25°C.
- Low cure temperature (70 °C) is possible for temperature sensitive materials.
- Superior adhesion to aluminum, good adhesion to copper and noble metal plated contacts.
- Compatibility with ACI inks and encapsulants.

#### **Typical Performance**

Volume resistivity 80 °C for 60 min <sup>1</sup>	< 7.5 x 10 <sup>-4</sup> Ω*cm
Lap shear <sup>2</sup>	> 800 kPa
Service Temperature	<200 °C
Typical Properties	
Physical State	Paste
Color	Silver
Viscosity <sup>3</sup>	
1 s <sup>-1</sup>	600 Pa·s
10 s <sup>-1</sup>	125 Pa·s
100 s <sup>-1</sup>	40 Pa·s
Density	2.7 g/mL
Percent Solids <sup>4</sup>	>94 %
Shelf Life at 0°C	12 Months

#### **Typical Processing Parameters**

Deposition methods	Stencil printing, syringe dispense
Curing Time and Temperatures	60 min at 70 °C 10 min at 80 °C ramp to 120 °C at 4 °C/min
Thinner/Diluent	Butyl carbitol acetate
Clean Up Solvents	Acetone, MEK, no alcohol based solvents

<sup>1</sup> Measured 24 hours after suggested cure cycle

<sup>2</sup> Single lap polyester to polyester

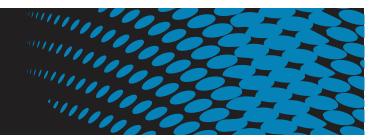
<sup>3</sup> Anton Paar MCR302 at 25°C

 $^4$   $\,$  150 °C for 120 minutes in box oven



ACI Materials Inc. FE1101 TDS Rev 4 Page 1 of 2





# **Contact ACI**

ACI Materials, Inc. 44 Castilian Drive Goleta, CA 93117 <u>info@acimaterials.com</u>

805-324-4486 www.acimaterials.com

### 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

The product information and recommendations contained herein are based on data obtained by tests we believe to be accurate, but the accuracy and completeness thereof is not guaranteed. No warranty is expressed or implied regarding the accuracy of these data, the results obtained from the use hereof, or that any such use will not infringe any patent. ACI Materials, Inc. assumes no liability for any injury, loss, or damage, direct or consequential, arising out of its use by others. This information is furnished upon the condition that the person receiving it shall make their own tests to determine the suitability thereof for their particular use, before using it. User assumes all risk and liability whatsoever in connection with their intended use. ACI Materials' only obligation shall be to replace such quantity of the product proved defective.



ACI Materials Inc. FE1101 TDS Rev 4 Page 2 of 2