

Technical Data Sheet

Low Temperature Co-fired Ceramic Systems A6M/A6M-E LTCC FX87 Resistor Series (Surface and Buried Applications*)

Application

The FX87 Series of thick film resistor pastes have been specifically designed for use as both co-fired surface and buried resistors with the Ferro A6M/A6M-E LTCC Tape Systems.

FX87 resistors are designed for the manufacture of high frequency Au or Mixed-Metal based packages and substrates for defense, aerospace, automotive, telecom, medical, and other high reliability applications up to 110 GHz.

FX87 Resistors formulated and processed to be RoHS compliant.

Typical Formulation Properties

Viscosity: 90 ± 20 Pa.s using HBT 2X Brookfield Viscometer, CP-51 @ 2.5 rpm @25°C

Storage and Shelf-life: These products should be stored in tightly sealed containers at 10 - 25°C, in a dry place away from direct sunlight. Shelf life of a factory sealed container is minimum 6 months from date of shipment when properly stored.

- Note that label will denote "S" for Surface and "B" for buried-Example FX87-102S is for a Surface application- FX87-102B is for a Buried application

Typical Processing Recommendations

Thinning: These pastes are formulated at the appropriate viscosity for the intended application. Contact Technical Service for a recommended thinner to replace solvent loss.

Printing: 280 or 325 mesh stainless steel screen with 12 µm emulsion thickness will provide a typical dried print thickness of 25 ± 2 µm.

Leveling: 5 minutes at room temperature.

Drying: 10 to 15 minutes at 70C with forced air flow and exhaust.

Firing: The FX87 Series of thick film resistors are formulated to co-fire with Ferro's A6M/A6M-E LTCC tapes in accordance to the standard firing profile. Please refer to Ferro LTCC Design Guide for details.

Typical Fired Properties

Resistivity¹:

- | | |
|------------|-------------|
| • FX87-011 | 10 ± 30% |
| • FX87-101 | 100 ± 30% |
| • FX87-102 | 1000 ± 30% |
| • FX87-103 | 10000 ± 30% |

¹ Ω/sq@1 mil calibrated on a 2 square 2mm X 1mm resistor pattern and terminated with CN30-025JH



Complies with EU RoHS Directive 2011/65/EU

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