

Technical Data Sheet

Low Temperature Co-fired Ceramic Systems CN31-014/CN31-017 Solderable PtAu LTCC Conductor System

Application

CN31-014/CN31-017 Pt Au system is designed as a two-part post fireable PtAu conductor series for Ferro's A6M/A6M-E LTCC Tape Systems

CN31-014 acts as an adhesion layer while CN31-017 provides a solderable surface layer with excellent solder wetting and leach resistance with Sn60 type solders.

CN31-014/CN31-017 PtAu conductors are formulated and processed to be RoHS compliant.

Typical Formulation Properties

Viscosity¹:	CN31-014	95 ± 15 Pa.s
	CN31-017	130 ± 20 Pa.s
PtAu Content:	CN31-014	74.3 %
	CN31-017	80.8 %

Line Resolution: 5 mil (125µm) lines and spaces

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.

Typical Process Parameters

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: CN31-014 and CN31-017 are printed and dried sequentially with 325 mesh stainless steel screen with 12 µm emulsion thickness.

Leveling: 5 minutes at room temperature

Drying: 10-15 minutes at 100-120°C with forced air flow and exhaust.

Firing: 850 °C for 10 minutes at Peak Temperature with an overall profile of 45 minutes.

Film Thickness: 20-25 µm

Resistivity: < 50 mΩ/sq/mil

Solderability²: < 3 seconds

Leach Resistance³: < 7 seconds

Initial Adhesion⁴: > 22 N

¹Brookfield HBT viscometer typically with a SC4-14 spindle

²Dip seconds to reach >95% coverage @ 230 °C; 60Sn-40Pb

³Immersion time to < 80% wetting @ 230 °C

⁴Peel on 80 x 80 mil pads



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