

Technical Data Sheet

Low Temperature Co-Fired Ceramic Systems L8 LTCC Au Conductor System

Application

Ferro's co-fireable Au conductor are engineered to provide high reliability performance with L8 packaging applications.

Ferro's LTCC Au conductors are formulated and processed to be RoHS and REACH compliant.

Typical Formulation Properties

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 seal 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 recommended thinner to replace solvent loss.

Printing: A 280-325 mesh stainless steel screen with 12 to 25 µm emulsion thickness.

Leveling: 5 minutes at room temperature.

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

Firing: 825C for 15 minutes at Peak Temperature.

Refer to Ferro's LTCC Design Guide for specific ramp rates, air exchange information, cooling rates provided and other processing parameters.

Typical Performance Characteristics

Product		FX30-025JH	CN30-078PF	CN30-080M	CN36-020
Composition Family		Au	Au	Au	AuPtPd
Application		Internal Conductor, Adhesion Layer for Brazeing	Via	Wire Bond Surface Conductor	Solderable Surface Conductor
Viscosity ¹	Pa.s	95 ± 15	2800 ± 500	130 ± 20	190 ± 40
Metal Content	%	75	75	70	72
Fired Thickness	µm	14-18	14-18	14-18	14-18
Resistivity ²	mΩ/sq	< 3.0	-	< 2.2	< 50
Wirebond Strength ³	grams	> 10	-	> 35	-
Solderability ⁴	%	-	-	-	> 95
Leach ⁴	%	-	-	-	< 10
Initial Adhesion ⁵	N	-	-	-	> 13

¹ Brookfield HBT viscometer typically with an SC4-14 spindle

² Per sq. @25 µm

³ FX30-025JH tested w/ 1 mil wire CN30-080M tested w/2 mil wire

⁴ 230 ± 5°C; 60Sn-40Pb-2Ag; 185 flux;

⁵ Peel on 80 x 80 mil pads



EU RoHS Directive 2011/65/EU

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