

Technical Data Sheet

Low Temperature Co-Fired Ceramic Systems 3066/3068N Wire-Bondable Au Conductors

Application

3066 and 3068N Au conductors have been formulated for post-fire applications for A6M, A6M-E, L8, and other ceramic substrate materials. 3066 is Au wire-bondable and 3068N is Aluminum wire-bondable.

3066 and 3068N provide a dense metallic surface with low resistivity that promotes ease of wire-bonding by ultrasonic, thermosonic or thermocompression bonding techniques.

3066 and 3068N Au conductors are formulated and processed to be RoHS compliant.

Typical Formulation Properties

Viscosity: 160 ± 20 Pa.s at 25°C, when measured using a Brookfield HBT 2X cone and plate viscometer with a CP-51 spindle @ 2.5 rpm.

Metal Content:

- 3066 85.4 %
- 3068N 85.0 %

Line Resolution:

- 3066 75-125 μm lines and spaces
- 3068N 100-150 μm lines and space

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



EU RoHS Directive 2011/65/EU

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Typical Processing Recommendations

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

Printing: A 325 mesh stainless steel screen with 12 μm thick emulsion typically yields a dry thickness of 20 to 25 μm .

Leveling: 3-4 minutes at room temperature.

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

Firing: Optimum results are obtained by firing at a peak temperature of 850°C for 10 minutes with a total cycle time of 45 minutes.

Typical Fired Properties

Film Thickness: 10 to 12 μm

Resistivity:

- 3066 3.0 to 2.4 $\text{m}\Omega/\text{sq}$ @ 1 mil fired
- 3068N 3.0 to 4.0 $\text{m}\Omega/\text{sq}$ @ 1 mil fired