

## Technical Data Sheet

### THICK FILM MATERIALS

**Product Type:** Conductors

**Product Name:** C7462



Fine Line, ENIG Plateable Copper Conductor

#### Description

C7462 is a copper conductor paste designed for screen printing application on alumina substrates where ENIG plating is required. It has the capability to print 100 µm lines and spaces using 280 or 325 mesh screens with 0.2 to 0.5 emulsion.

#### Key Benefits

- Exceptionally high conductivity
- Migration resistant
- ENIG plateable on alumina

#### Recommended Processing Guidelines

##### Printing

280 – 325 stainless steel mesh screen  
0.2 – 0.5 mil emulsion  
Allow to level at room temp for 2 – 3 minutes

##### Drying

125 °C for 10 minutes

##### Firing Profile

Fire in Nitrogen with O<sub>2</sub> between 2 – 10 ppm  
925 °C peak  
Dwell time of 8 – 10 minutes  
Typical rise time of 20 – 23 minutes  
(measured from 100 °C entry point)  
Total cycle time of 50 – 65 minutes

##### Line Resolution

≥ 4 mils (100 µm)

##### Thickness

Dried 40 – 50 µm  
Fired 20 – 25 µm

##### Thinner

RV-507

##### Warranty

TBD

##### Storage

Store in a dry location at 5 – 25 °C.

##### **DO NOT REFRIGERATE.**

Allow paste to come to room temperature prior to opening. Materials should be mixed thoroughly before using, as settling may occur during storage.

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#### Typical Properties

##### Resistivity

≤ 1.75 mΩ/□  
at 25 μm fired film thickness

##### Adhesion

80 x 80 mil pad  
ENIG plated  
SAC 305 at 245 °C  
RMA flux  
Initial ≥ 5.0 lbs  
Aged ≥ 5.0 lbs (48 hours at 150 °C)

##### Solderability

ENIG plated  
SAC 305 at 245 °C  
5 sec dip, RMA flux  
> 95%

##### Coverage

55 cm<sup>2</sup>/g at 25 μm fired film thickness

##### Viscosity

150 – 220 Kcps, Brookfield HBT,  
SC4 – 14 spindle and 6R cup at 10 rpm, 25 °C

##### Solids

90.0 ± 1.5 %

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