

## Conductors

### C7257

#### Nitrogen Fireable Copper Conductor

**Description:**

C7257 copper conductor is a practical alternative to precious metal materials in many applications. The advanced powder technology in C7257 results in improved fired film properties.

● **Key Benefits :**

- Exceptionally high conductivity
- Migration resistant
- Low cost
- Leach resistant

● **Typical Properties:**

**Resistivity :**

≤ 2.6 milliohms per square  
at 13 microns fired film thickness

**Adhesion :**

80x80 mil pad  
62Sn/36Pb/2Ag @ 230°C  
RMA flux  
Initial ≥ 5.0 lbs  
Aged ≥ 3.0 lbs (48 hours @ 150°C)

**Solderability :**

63Sn/37Pb @ 230°C  
5 sec dip, RMA flux  
>95%

**Solder Leaching :**

	<u>10 sec Dips</u>	<u>% Line Lost</u>
63Sn/37Pb @ 230°C	3	≤ 5%
RMA Flux	6	≤ 10%

**Coverage:**

100 cm<sup>2</sup>/g

**Viscosity :**

135-165 Kcps, Brookfield HBT,  
SC4-14@ 10 rpm, 25°C.

**Solids:**

90.0 ±1%

● **Recommended Processing Guidelines:**

**Printing :**

280 stainless steel mesh screen  
0.5 mil emulsion

**Drying :**

Dry at 125°C for 15 minutes.

**Firing Profile :**

900°C peak  
Dwell time of 9-11 minutes.  
Typical rise time of 20-23 minutes  
(measured from 100°C entry point)  
Total cycle time of 50-65 minutes

**Line Resolution:**

8 mils (200 microns)

**Thickness :**

Dried: 28 microns  
Fired: 11-15 microns

**Thinner :**

Heraeus RV-507 (Texanol®)

**Warranty:**

Material guaranteed to meet specifications for 6 months from date of shipment.

**Storage :**

Store in a dry location at 5°C-25°C.

**DO NOT REFRIGERATE.**

Allow paste to come to room temperature prior to opening.

Spatulate well before using.

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The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application.

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