Heraeus

Resinate Pastes

RP 20003/230-15%

Au Resinate Paste

Description

The Resinate Paste RP 20003/230-15% is a thin film conductor paste for use on alumina and glazed alumina. It contains gold and a small amount of non-precious metals in form of soluble organometallic compounds. After firing a conducting gold film is obtained. Due to simultaneous sintering of non-precious metal oxides offers high adhesion between gold and substrate. To reach higher film thicknesses it is necessary to print several films on top of each other. Material has to be fired after each layer.
The paste is suitable for temperature sensors.

Processing

1. Spatulate well prior to processing. When stored in a fridge: The paste should have acquired temperature before being opened, to avoid condensation.
2. Print through a 300 - 350 mesh stainless steel with an emulsion thickness of 15 - 20 µm
3. Level at room temperature for 10 minutes
4. Dry at 90 °C for 15 minutes
5. Fire at 850 °C (peak) for 7 -10 minutes, and wit h a total firing cycle time of 40 – 60 minutes.

Thinner:

HVS 100;

Screen Cleaning:

Toluene; Xylene; Cyclohexanone**;**

Typical Properties:

Viscosity:	2300 – 3300 mPas (20 °C, D = 205 sec^{-1})
Gold Content:	15.0 ± 0.3 %
Printing Speed:	Up to at least 10 cm/s
Fired Film thickness:	0.1 – 0.3 µm
Coverage:	approx. 5 dm^2/g
Line Definition:	> 120µm
Resistivity (20 °C):	125 – 120 mOhm/sq at 15µm dry thickness on Alumina 96%

Shelf Life:

6 month in a dry location at 5 – 25 °C in a tightly closed container

Remarks:

Before printing care should be taken to ensure that the substrate is free from contaminations and dust.
During firing small quantities of sulfur dioxides and organic sulfur compounds are released.
After printing, screens should be cleaned immediately to avoid drying on the screen.

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