

## Resinate Pastes

### RP 20003/237-22%

#### Au Resinate Paste

#### Description

The Resinate Paste RP 20003/237-22% 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.

#### Typical Properties:

Viscosity:	2300 – 3600 mPas (20 °C, D = 205 sec <sup>-1</sup> )
Gold Content:	22.0 ± 0.3 %
Printing Speed:	Up to at least 10 cm/s
Fired Film thickness:	0.1 – 0.5 µm
Coverage:	approx. 4 dm <sup>2</sup> /g
Line Definition:	> 120µm
Resistivity (20 °C):	90 – 120 mOhm/sq at 15µm dry thickness on Alumina 96%

#### 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 with a total firing cycle time of 40 – 60 minutes.

#### 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.

#### Thinner:

HVS 100;

#### Screen Cleaning:

Toluene; Xylene; Cyclohexanone;

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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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