

Resinates



GP P12/1 H



Gold - Palladium Resinate Solution

Description

GP P12/1 H is a liquid precious metal product for use on glazed ceramic and quartz glass. It contains gold and palladium in form of dissolved organo metallic compounds.

After firing a highly reflective white gold layer is obtained. Due to simultaneous sintering of non-precious metal oxides it offers high adhesion between gold-palladium and substrate.

Key Benefits

- Suitable for IR/heat reflective layers on quartz glass
- Free of lead, cadmium and nickel
- Free of phthalate
- REACH ³ and RoHS ⁴ compliant

Processing

1. Do not spatulate or shake prior to processing. Solution can build some deposit which will not dissolve, especially after a long period storage - this can cause defects after firing.

When stored in a refrigerator allow the solution to come to room temperature prior to opening, to avoid condensation.

2. The precious metal liquid can be applied by brush or spray application. For spray application it is necessary to add 25 – 35 % of thinner.
3. Level at room temperature for 5 minutes
4. Dry at room temperature for further 60 minutes
5. Fire at 820 °C (peak) for 10 – 15 minutes, with a total firing cycle time of 50 – 60 minutes.

Thinner V 16 for spraying
 V 35
 V 39

Typical Properties (Solution)

Form:	Liquid solution
Viscosity:	140 – 170 mPas (20 °C, D = 50 s ⁻¹)
Au/Pd Ratio:	4.42 : 1
Coverage:	Approx. 500 cm ² / g (FFT at 0.3 µm)
Shelf Life:	6 months from date of shipment with correct storage (in a dry, cool (5 – 25 °C) and dark place with container tightly shut)

Typical Properties (Fired) ¹

Fired Film Thickness ² : (FFT)	0.1 – 0.3 µm
Fired Residue:	12.8 – 13.2 %



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- 1 Typical properties based on laboratory test methods. For optimum results all materials should be fired in a profiled furnace supplied with dried, hydrocarbon and other contaminant free air (PP-1).
- 2 Measured on quartz glass
- 3 REACH compliant according to the latest ** Annex XIV to Regulation (EC) of the European Parliament and of the council on the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") by European Chemicals Agency and its subsequent amendments; the material does not contain any substance listed in Annex XIV.
- 4 RoHS compliant according to the latest ** Directives (European Union) of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions related to Pb)

** See the data sheet issue date (DD/MM/YY) as reference of validity of latest edition which is available on request.

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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