

Resinates

APP 100A-H Brown



Liquid Bright Platinum / DPIS*

* Development Product Information Sheet

Description

APP 100A is a sprayable gold/platinum solution for use on different metal alloys or high temperature enamels.

After firing metallic gold/platinum films are achieved. The films are highly reflective for infra-red radiation and resistant to high temperatures.

Key benefits

- The material can be used for:
 - Reducing rate of heat transfer on engine shrouds, drag-shute containers, tailcone assemblies, blast shields and cooling ducts;
 - Heat reflectors in aircrafts and military applications to protect heat sensitive parts from infra-red heat radiation generated by engines.
- Free of lead, cadmium and nickel
- Free of phthalate
- REACH² and RoHS³ compliant

Processing

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

2. Application by: Air Brush Spray
 Electrostatic Spray

3. Firing (peak) recommendations for:

High temp. enamels on steel:	700 - 760 °C
Stainless steel:	535 - 540 °C
Magnesium alloys:	400 - 480 °C
Titanium alloy:	400 - 480 °C
Aluminum alloys:	500 - 540 °C

Thinner Terpineol

Typical Properties (Solution)

Form: Dark brown liquid

Viscosity: 0.5 - 50 mPas
 (25 °C, D = 60 rpm)

Metal Content⁴: 5.50 % ± 0.3 % Au
 0.75 % ± 0.2 % Pt

Chemical Characterisation: Gold and platinum sulfo-resinates, metal resinates, synthetic and natural resins dissolved in organic solvents

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

Color: Platinum grey

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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 REACH compliant according to the Commission Regulation (EU) No 143/2011 of 17 February 2011 amending Annex XIV to Regulation (EC) No 1907/2006 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; we define a material as REACH compliant, as long as substances used are not recorded in the Annex XIV.
- 3 RoHS compliant according to the Directives (European Union) No 2011/65/EC of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions No. 7. c. 1 of the EU Directive e.g. related to Pb)
- 4 Inductively coupled plasma optical emission spectrometry (ICP-OES), also referred to as inductively coupled plasma atomic emission spectroscopy (ICP-AES), is an analytical technique used for the detection of trace metals.

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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