

Resinates

GG 991BD - H



Liquid Bright Gold Resinate Solution / DPIS*

* Development Product Information Sheet

Description

GG 991BD-H is a sprayable gold solution for use on different metal alloys. After firing metallic gold 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
- REACH ² and RoHS ³ 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:

625 Inconel ⁴ :	450 - 500 °C
Titanium alloy:	450 - 500 °C
Stainless steel:	450 - 500 °C

Thinner Ethyl acetate

Typical Properties (Solution)

Form:	Orange to red brown liquid
Viscosity:	0.5 - 50 mPas (20 °C, D = 50 rpm)
Metal Content ⁵ :	5.5 % ± 0.2 % Au
Chemical Characterisation:	Gold sulforesinate, metal resins, 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:	Golden
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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. I of the EU Directive e.g. related to Pb)
- 4 Inconel is a registered trademark of Special Metals Corporation that refers to a family of austenitic nickel-chromium-based super high-performance alloys. Different inconels have widely varying compositions, but all are predominantly nickel, with chromium as the second element.
- 5 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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