

Dielectric

IP 9037



Lead Free Acid Resistant Overglaze - Clear / DPIS*

* Development Product Information Sheet

Description

IP 9037 is a screen printable, thixotropic paste, for different purposes, especially for LTCC and chip applications. It fires in a clear dense layer and withstands high working temperatures of up to 550 °C.

Because of the high firing temperature the glaze is highly passivated to withstand abrasion and aggressive media occurring in plating processes.

Key Benefits

- IP 9037 withstands plating solutions e.g. Ni baths with pH-values of 4 – 5 and H₂SO₄ baths with pH-values of < 1.
- Also resistant to alkaline solutions with pH-values of ≤ 9.
- Free of lead, cadmium and nickel
- Free of phthalate
- REACH³ and RoHS⁴ compliant

Processing

1. Spatulate well prior to processing. When stored in a fridge: the paste should have acquired room temperature before being opened, to avoid condensation.
2. Print through a 200 – 325 mesh stainless steel screen.
3. Let the print settle at room temperature for 10 minutes.
4. Dry at 150°C for 10 minutes.
5. Fire at 850 °C (peak) for 8 – 12 minutes, and with a total firing cycle time of 30 – 60 minutes.

Thinner

HVS 507

Typical Properties (Paste)

Form :	Thixotropic paste
Viscosity :	40 - 60 Pas (23 °C, D = 33 s ⁻¹)
Solids:	66.0 ± 1.0 %
Printing Speed:	Up to 20 cm/s
Shelf Life:	6 months from date of shipment with correct storage (in a dry, cool (5 to 25 °C) and dark place with container tightly shut)

Typical Properties (Fired)¹

Color ² :	Clear (colorless transparent)
Fired Film Thickness ² :	15 - 25 µm

Compatibility

Tapes:	CT 700 Series CT 800 Series
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- 1 Typical property 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 after printing with a 200 mesh steel screen; screen thickness and emulsion thickness combined was c. 110 µm, and the resultant printed track was 500 µm wide.
- 3 REACH compliant according to the Annex XIV (Feb. 17, 2011) of Commission Regulation (EU) No 143/2011 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; the material does not contain any substance listed in the Annex XIV.
- 4 RoHS compliant according to 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)

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.

Europe [TH]

Heraeus Precious Metals GmbH & Co. KG
Thick Film Materials Division
Heraeusstr. 12 – 14
63450 Hanau
Germany
Tel: +49 (6181) 35 – 5466
E-Mail: th-info@heraeus.com
Internet: www.heraeus-thickfilm.com

Americas [TH]

Heraeus Materials Technology LLC
Thick Film Materials Division
24 Union Hill Road
W. Conshohocken, PA 19428
USA
Tel: +1 (610) 825 – 6050
E-Mail: techservice.hcd@heraeus.com
Internet: www.heraeus-thickfilm.com

Asia [TH]

Heraeus Materials Technology Shanghai Ltd.
No. 1 Guang Zhong Road
Zhuanquiao Town, Minhang District
201108 Shanghai
People's Republic of China
Tel: +86 (21) 3357 - 5688
E-Mail: th.hmmts@heraeus.com
Internet: www.heraeus-thickfilm.com