

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Dielectrics

Product Name: SD 1019



Lead Free and Acid-Resistant Overglaze

Description

SD 1019 is a lead free, screen printable 850 °C overglaze paste. Because of the high firing temperature it fires to a transparent green color and very dense glaze layer which is highly resistant vs acid, especially to protect heating tracks on dielectric on steel.

Key Benefits

- Extremely resistant vs citric acid and salt fog / spray
- Excellent compatibility with HERAEUS heating tracks and its conductor termination on dielectric SD 1010
- Free of lead, cadmium and nickel
- Free of phthalate
- REACH³ and ROHS⁴ compliant

Processing

- 1) Spatulate well prior to processing.

When stored in a refrigerator allow paste to come to room temperature prior to opening, 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 10 – 12 minutes, and with a total firing cycle time of approx. 30 – 60 minutes.

Thinner

HVS 507

Typical Properties (Paste)

Form	Pseudoplastic paste
Viscosity	20 – 40 Pas (23 °C, D = 33/s)
Solids	70.0 % ± 1.0 %
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	16 – 26 µm
Colour	Green, transparent

Compatibility

Dielectrics	SD 1010
Heating Tracks	SR 21-350-025 SR 21-350-100
Termination (of Heating Tracks)	SC 1001 (AgPt)

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Legend:

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 after printing with a 200 mesh steel screen; thickness of screen and emulsion combined was c. 60 µm, and the resultant printed track was 500 µm wide.

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

Heraeus Electronics
Heraeus Deutschland GmbH & Co. KG
Heraeusstraße 12 – 14
63450 Hanau, Germany
www.heraeus-electronics.com

Americas
Phone +1 610 825 6050
electronics.americas@heraeus.com

China
Phone +86 21 3357 5457
electronics.china@heraeus.com

Asia Pacific
Phone +65 6571 7677
electronics.apac@heraeus.com

Europe, Middle East and Africa
Phone +49 6181 35 3069, +49 6181 35 3627
electronics.emea@heraeus.com