

## Technical Data Sheet

### THICK FILM MATERIALS

Product Type: Dielectrics

Product Name: IP9241



Pb and Cd Free Blue Dielectric

#### Description

IP9241 is a Pb and Cd free blue dielectric paste that can be fired between 850°C and 950°C. It contains a unique glass system that allows for application onto alumina and alumina nitride substrates. IP9241 has a dense fired film and is compatible with a variety of conductors designed for use on alumina and aluminum nitride.

#### Key Benefits

- REACH<sup>1</sup> and ROHS<sup>2</sup> compliant
- Excellent electrical properties
- Wide firing window

#### Typical Properties

##### Dielectric Constant

7.0 – 10.0 at 1 KHz

##### Dissipation Factor

< 0.5 % at 1 KHz

##### Insulation Resistance

> 10<sup>9</sup> Ω at 100 V DC

##### Breakdown Voltage

> 500 V DC per mil (3 individually fired layers)

##### Viscosity

40 – 80 Kcps, Brookfield RVT,  
SC4-14 spindle with 6R utility cup at 10 rpm, 25 °C

##### Solids

73.5 ± 1.5 %

#### Recommended Processing Guidelines

##### Printing

200 – 280 mesh stainless steel screen  
0.5 mil emulsion thickness

Allow wet prints to level at room temperature for 5 minutes

##### Drying

150 °C for 10 minutes

##### Firing

850 - 950 °C peak temperature  
Dwell time of 10 minutes

##### Thickness

Fired: 15 – 25 μm (1 layer)  
45 – 75 μm (3 layers)

##### Thinner

Heraeus RV-507 (Texanol)

##### Warranty

TBD

##### Storage

Store in a dry location at 20 – 25 °C with container lid safely fastened.

##### DO NOT REFRIGERATE.

Allow paste to come to room temperature prior to opening. Spatulate well before using, as settling may occur during storage.

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Legend:

1) 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.

2) 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

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