

## Technical Data Sheet

### THICK FILM MATERIALS

**Product Type:** Dielectrics

**Product Name:** IP9105HT / IP9105HTB



### Insulating Underglaze

#### Description

IP9105HT(B) is an insulating glaze used for porcelain steel coating applications and high temperature applications. IP9105HT(B) was specifically designed for use in circuits exposed to operating temperatures in the 475 °C range. IP9105HT(B) may be used in conjunction with Heraeus high temperature resistor systems and conductor materials.

IP9105HT fires to a gloss white surface.  
IP9105HTB fires to a blue surface.

#### Key Benefits

- High temperature dielectric
- Can be used on a wide variety of substrates including steel
- Standard resistors and conductors are compatible on top
- REACH<sup>1</sup> and RoHS<sup>2</sup> compliant

#### Typical Properties

**Dielectric Constant:**

10 at 1 KHz

**Dissipation Factor:**

0.15 % at 25 °C

**Coverage:**

190 cm<sup>2</sup>/g at 11 µm fired film thickness

**Viscosity:**

270 – 330 Kcps, Brookfield HBT,  
SC4-14 spindle and 6R utility cup at 10 rpm, 25 °C

**Solids:**

~ 70.0 %

#### Recommended Processing Guidelines

**Printing:**

325 mesh stainless steel screen  
0.5 mil emulsion  
1.1 mil wire  
Two layers each fired individually is recommended for optimum yield.

**Drying:**

150 °C for 10 minutes

**Firing:**

915 °C peak temperature  
Dwell time of 8 – 10 minutes

**Thickness (Target):**

Dried:	20 µm
Fired:	11 µm

**Thinner:**

RV-372

**Warranty:**

Material guaranteed to meet specifications for 6 months from date of shipment.

**Storage:**

Store in a dry location at 5 – 25 °C.

**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)

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