THICK FILM MATERIALS

Product Type: LTCC Materials
Product Name: TO2001

Co-fireable Solder Mask

Description
TO2001 is a screen printable dielectric that can be cofired with low temperature co-fired ceramic (LTCC) tape to act as a solder mask.

TO2001 has excellent adhesion to LTCC and is impervious to most solvents, moisture and soldering.

Key Benefits
- ROHS compliant
- Solder mask for LTCC tape
- Impervious to most solvents, moisture and solder

Typical Properties

Viscosity:
150 – 200 Kcps, Brookfield HBT, SC4-14 spindle with 6R utility cup at 10rpm, 25 °C

Dielectric Constant:
9.1 at 1 KHz

Insulation Resistance:
> 10^{14} Ω at 100 V DC

Breakdown Voltage:
> 1,000 V DC per mil

Solids:
75.0 % ± 2 %

Colour:
Blue

Recommended Processing Guidelines

Printing:
200 – 325 mesh stainless steel screen
0.5 – 1.0 mil emulsion

Allow wet prints to level at room temperature for 5 – 10 minutes before drying

Drying:
150 °C for 10 – 20 minutes

Burnout and Firing:
Burnout and firing should be done in a box furnace. Recommended firing profile:
5.5°C/minute to 450°C, hold for 90 minutes;
5°C/minute to 870 - 880°C, hold for 20 -30 minutes.
Cooling rate is approximately 6 -10°C/minute (furnace cooling rate).
Firing must be done on flat setter material (e.g. 96% alumina) since the tape will conform to the setter material.

Thickness:
Wet: 38 – 42 µm
Fired: 18 – 22 µm

Thinner:
RV-507

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.
Technical Data Sheet

Co-fireable Solder Mask

Legend:

1) 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).