

Technical Data Sheet

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

- ROHS¹ 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:

> 10¹¹ 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.

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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).

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