

Advanced Materials

TO2001

Co-fireable Solder Mask for CT2000

Description:

TO2001 is a screen printable dielectric that can be co-fired with CT2000 to act as a solder mask.

TO2001 has excellent adhesion to CT2000 and is impervious to most solvents, moisture and soldering.

● **Key Benefits:**

- Solder Mask for CT2000
- Compatible with CT2000 tape
- Impervious to most solvents, moisture and solder

● **Typical Properties:**

Viscosity:

150 - 200 Kcps, Brookfield HBT
SC4-14 spindle in
6R cup @10 RPM, 25°C

Dielectric Constant:

9.1 @ 1KHz

Insulation Resistance:

> 10¹¹ ohms @ 100 volts D.C.

Breakdown Voltage:

> 1,000 VDC per mil

Solids:

75% ± 2%

Color:

Blue

● **Recommended Processing Guidelines*:**

Printing:

200 - 325 mesh stainless steel screen
0.5 – 1.0 mil emulsion

Allow wet print to settle at room temperature for 5 – 10 minutes before drying.

Drying:

Dry at 150°C for 10 - 20 minutes.

Burnout and Firing:

Co-fire with CT2000

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 microns

Fired: 18-22 microns

Thinner:

RV-507

Warranty:

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

Storage:

Store in a dry location at 5°C-25°C.

DO NOT REFRIGERATE.

Allow paste to come to room temperature prior to opening.

Spatulate well before using

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C0-fireable Solder Mask for CT2000

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application.

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