

Technical Data Sheet



Product Type: Polymer Thick Film

Product Name: LTC3501



Lead Free Solderable Polymer Conductor

Description

LTC3501 is a screen printable polymer conductor designed to have good acceptance of lead free solders. LTC3501 is a low temperature curing material with excellent adhesion on a variety of substrates.

Key Benefits

- REACH¹ and RoHS² compliant
- Solvent resistant
- Excellent solder acceptance
- Multiple curing temperatures

Typical Properties

Resistivity:

≤ 35 milliohms/square/mil
when cured at 150 °C for 30 minutes

Adhesion:

> 5.0 lbf (Hand soldered lead at 90° angle)

Solvent Resistance:

Excellent

Viscosity:

50 - 150 Kcps Brookfield HBT
SC4-14 spindle and 6R utility cup @ 10 rpm, 25 °C

Solder type:

SAC305 @ 235°C for 3 seconds
10/88/2 @ 330°C for 3 seconds
95/5 @ 270°C for 3 seconds
Sn62 @ 230°C for 3 seconds

Mixing:

Material should be thoroughly mix prior to use.

Recommended Processing Guidelines

Printing:

280 – 325 stainless steel mesh or nylon screen
0.3 – 0.5 mil emulsion thickness

Cleaning:

Clean uncured resin with Acetone or similar solvent.

Curing:

150 – 200 °C for 30 minutes

Cured Thickness:

15 to 25 microns (per layer)

Recommended Substrates:

96% alumina substrates
FR4 or other PCB materials.
Polymer dielectric on metal.

Thinner:

RV-252

Warranty:

Material guaranteed to meet specifications for 3 months from date of shipment

Handling & Precautions:

Use in a well-ventilated area.
Avoid contact with skin.
Wash with soap and water.

Storage:

Refrigerate 5 °C – 10 °C to ensure proper performance of shelf life.
Allow paste to come to room temperature prior to opening.
Spatulate well before using, as settling may occur during storage.

SPECIAL NOTE:

Some of these materials may show resistance shifts due to thermal storage. Stability baking has been shown to minimize this behavior.

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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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