

Technical Data Sheet



THICK FILM MATERIALS

Product Type: Polymer Thick Film Product Name: LTC3610

Low Roughness Silver Conductor

Description

LTC3610 is a general purpose silver conductive ink designed for screen printing. The unique formulation of LTC3610 allows for an extremely smooth print with excellent adhesion to a variety of substrates.

Key Benefits

- High conductivity
- Low temperature curing
- Compatible with Heraeus UV dielectrics
- Compatible with Heraeus low temperature resistors (LTR4600)
- Compatible with treated and untreated polyester films

Typical Properties

Resistivity:

≤ 15milliohms/square/mil when cured at 120 °C for 5 minutes

Adhesion:

Cross Hatch Tape Test Method PET \geq 4B cross hatch

Viscosity:

30-65 Kcps Brookfield RVT SC4 -14 spindle and 6R utility cup @ 10 rpm, 25 $^\circ C$

Mixing:

Material should be thoroughly mixed prior to use.

Recommended Processing Guidelines

Printing:

150 - 325 stainless steel mesh or polyester screen 0.3 - 0.5 mil emulsion thickness

Cleaning:

Clean uncured resin with Acetone or similar solvent.

Curing:

80 °C for 20 minutes 100 °C for 10 minutes 120 °C for 5 minutes

Cured Thickness:

6 – 8 microns

Recommended Substrates:

Treated and untreated polyester

Thinner:

LC-4124

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 at 5 °C – 25 °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.

Heraeus

Technical Data Sheet

Low Roughness Silver Conductor

Legend:

¹⁾ REACH compliant according to the <u>latest</u> ** 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; <u>the material does not</u> <u>contain any substance listed in Annex XIV</u>.

²⁾ RoHS compliant according to the <u>latest</u> ** Directives (European Union) of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions related to Pb)

Heraeus Electronics

Heraeus Deutschland GmbH & Co. KG Heraeusstraße 12 – 14 63450 Hanau, Germany www.heraeus-electronics.com

Americas

Phone +1 610 825 6050 electronics.americas@heraeus.com

Asia Pacific

Phone +65 6571 7677 electronics.apac@heraeus.com

China

Phone +86 21 3357 5457 electronics.china@heraeus.com

Europe, Middle East and Africa

Phone +49 6181 35 3069, +49 6181 35 3627 electronics.emea@heraeus.com

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 infirgement resulting from its use (unless this is constructually and explicitly agreed in writing, in advance). The data is supplied to no the condition that he user shall conduct tests to determine materials subability for particular applications.