

Technical Data Sheet



Product Type: Polymer Thick Film Product Name: LTR4911

10 ohm Graphene Ink

Description

LTR4911 is a screen printable, graphene-enabled conductive ink for low temperature applications. This graphene-enabled ink, when properly cured, has good adhesion to most untreated and treated flexible plastic films such as polyester.

Key Benefits

- Good adhesion to most flexible plastic films
- Fast curing
- Compatible with Heraeus low temperature Ag conductor

Recommended Processing Guidelines

Printing:

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

Cleaning:

Clean uncured resin with Acetone or similar solvent.

Curing:

120 °C for 5 minutes 110 °C for 10 minutes 90 °C for 15 minutes

Cured Thickness:

6 – 8 microns

Thinner: RV-372

Recommended Substrates:

Untreated PET Treated PET Flexible plastic films

Warranty

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

Handling & Precautions:

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

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.

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

10 ohm Graphene Ink

Typical Properties

Resistivity:

 \leq 10 ohms/square/mil when cured at 120 °C for 5 minutes

Adhesion:

Tape Test Method: Good Adhesion to Untreated PET, Treated PET and Flexible Plastic Films

Viscosity:

100 – 130 Kcps Brookfield HBT SC4 -14 spindle and 6R utility cup @ 10 rpm, 25 °C

Solids: 40.0 ± 1.0%

10.0 ± 1.070

Mixing: Material should be thoroughly mixed prior to use.

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 7649 electronics.apac@heraeus.com

China

Phone +86 53 5815 9601 electronics.china@heraeus.com

Europe, Middle East and Africa Phone +49 6181 35 4370 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, any pattern timfregement resulting from its use (unlines this is contractually and explicitly agreed in writing, in advance). The data is supplied upon request, and contract the store shall be alterning the advance and the store shall be advanced. The store shall be advanced to the condition that the user shall conduct tests to determine materials suitability for particular applicitly agreed in the data is supplied upon that the user shall conduct tests to determine materials suitability for articular and particular application.