

## Technical Data Sheet



### THICK FILM MATERIALS

**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.

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#### Typical Properties

**Resistivity:**

≤ 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%

**Mixing:**

Material should be thoroughly mixed prior to use.

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