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**

- REACH¹ and RoHS² compliant
- Good adhesion to most flexible plastic films
- Fast curing
- Compatible with Heraeus low temperature Ag conductor

**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.

**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

**SPECIAL NOTE:**
Some of these materials may show resistance shifts due to thermal storage. Stability baking has been shown to minimize this behavior.
Technical Data Sheet

10 ohm Graphene Ink

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)

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 particular applications.