

Technical Data Sheet



Product Type: Resistors
LTR4300H Series



50mohm/sq to 100ohm/sq Polymer Resistor System

Description

The LTR4300H series is a Pb and Cd free polymer resistor system designed for printing and curing over a Heraeus polymer dielectric on a variety of substrates. The LTR4300H series has been formulated specifically for heater applications where high operating temperatures are required. LTR4300R provides stable resistance values when cured at low temperatures. The LTR4300H series is compatible with Heraeus low temperature dielectrics and conductors.

Key Benefits

- REACH¹ and ROHS² compliant
- Stable resistance values
- Compatible with Heraeus low temperature conductor and dielectric systems
- Designed specifically for heater applications
- Can operate up to 250 °C with stable resistance

Typical Fired Resistor Properties

LTR4300H Series ¹	LTR43.05H	LTR43.25H	LTR43.05H	LTR4301H	LTR4311H	LTR4321H
Resistivity ² (Ω/sq)	50 mΩ/sq	250 mΩ/sq	500 mΩ/sq	1 Ω/sq	10 Ω/sq	100 Ω/sq
TCR ² (ppm/°C)	> 1500	> 1500	> 1500	> 1500	± 450	± 450
Viscosity, Kcps	30 – 80	30 – 80	30 – 80	30 – 80	30 – 80	30 – 80

1. Processing Conditions; Termination: LTC3301 cured at peak temp of 150 °C for 30 minutes.
Resistor size 100 square serpentine pattern printed with 280 mesh screen to cured film thickness of 23-27 μm LTD5101 and 3003 Aluminum
2. Shipping specifications

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Recommended Processing Guidelines

Printing

290 – 325 stainless steel mesh or nylon screen, 0.3 – 0.5 mil emulsion thickness

Terminal Conductor

LTC3301

Curing:

200-300 °C for 60 minutes

Optimal Cure Conditions: 250 °C for 60 minutes

Thickness:

Cured film: 23 – 27 µm

Recommended Substrates:

Glass, Alumina, Polymer dielectric on metal

Thinner:

V-521

Cleaning:

Clean uncured resin with RV-540 followed by Acetone or similar solvent

Warranty:

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

Handling and Precautions:

Use in a well-ventilated area

Avoid contact with skin

Wash with soap and water

Storage:

Store in a dry location at 5 – 10 °C.

DO NOT REFRIGERATE.

Allow paste to come to room temperature prior to opening. Spatulate well before using, as settling may occur during storage.

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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