

## PTC4960

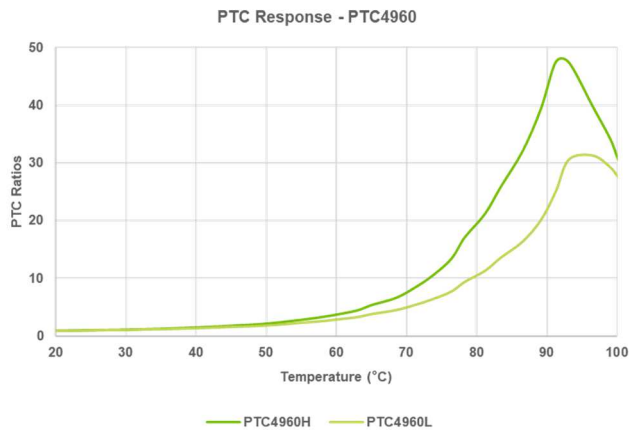
### Polymer Thick Film

#### Description

PTC4960 ink is formulated as a self-regulating positive thermal coefficient (PTC) resistor for low temperature heater applications with operating temperatures 50 – 65 °C. High and low resistance formulations can be provided allowing customized solutions for heater design by blending the materials. Target resistances and temperatures can be optimized within this range.

#### Key Features

- Fast heating time to operating temperature
- Excellent thermal stability and lifetime
- High response rate
- $\geq 10x$  resistance shift at 80 °C
- Compatible with commercially available adhesives



#### Typical Properties

Resistivity	Adjustable between 4 - 15 kOhm / sq.
Non-Volatile	(1hr @ 150 °C) 35 – 40 %
Viscosity	Brookfield HBT DVIII, #14 spindle in utility cup @ 10 rpm, 25 °C
Color	Dark grey / black

#### Recommended Processing Guide

Printing	230 stainless steel mesh 0.5 mil emulsion thickness
Curing	Standard: 10 minutes @ 140 °C Longer curing times will typically give higher PTC response rate. Curing temperatures recommended 120 – 200°C.
Thickness	1 layer 8 – 10 µm cured film thickness
Coverage	≈ 315 cm <sup>2</sup> /g
Thinner	RV-372

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### Warranty

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

### Handling and Precautions

- Use in a well-ventilated area.
- In general, avoid contact with skin.
- Wash with soap and water.
- For cleanup of uncured material, RV-372 followed by acetone is recommended.

### Storage

- Paste should be stored at 8 – 28 °C in a dry place out of direct sunlight. Complete spatulating or speed mixing recommended to ensure homogenization before use.
- DO NOT REFRIGERATE
- Allow paste to come to room temperature prior to opening. Spatulate well before using, as settling may occur during storage.

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