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CERMET RESISTOR SYSTEM

PTC 2600-I SERIES

The PTC 2600-I Series of thermistor pastes is designed for making positive temperature coefficient thermistor films. Application where thermistors are required to be intimately bonded to the substrate such as temperature compensation of hybrid circuits and fast response sensors may be achieved with the PTC 2600-I Series. When used as temperature sensors, a linear response is obtained from ambient to temperatures in excess of 300°C with the advantage of reduced size and lower cost. Four values of sheet resistivity are available: 5 Ω/sq., 10 Ω/sq., 100 Ω/sq., and 1 kΩ/sq.

The 2600-I Series is designed to withstand high power dissipation and is ideally suited to the manufacturing of self limiting thick film heater elements for a wide range of consumer and industrial applications.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, 10 rpm, ABZ spindle, 25.5°C±0.5°C)	200±30 Pa•s
SHELF LIFE:	6 months

PROCESSING

SCREEN MESH/EMULSION:	200/18 microns
LEVELING TIME: (20°C-25°C)	5-10 minutes
DRYING AT 125°C:	10-15 minutes
FIRING TEMPERATURE RANGE:	825°C-850°C (in air)
OPTIMUM (CALIBRATION):	850°C
TIME AT PEAK TEMPERATURE:	10 minutes

PTC 2600-I 9211-C

ESL Affiliates
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RATE OF ASCENT / DESCENT:	50°C-60°C/minute
SUBSTRATE FOR CALIBRATION:	96% alumina
RECOMMENDED TERMINATION:	9912-A
THINNER:	ESL 401

TYPICAL PROPERTIES

DRIED PRINT THICKNESS: (on 96% alumina)		22.5 ± 2.5 µm
RESISTIVITY:	2650-I	5 Ω ±30%
	2611-I	10 Ω ±20%
	2612-I	100 Ω ±20%
	2613-I	1 kΩ ±10%
TCR: (Measured on a 2 mm x 20 mm resistor)	2650-I Hot and Cold sides	3400±400 ppm/°C
	2611-I Hot and Cold sides	3000±400 ppm/°C
	2612-I Hot and Cold sides	2200±400 ppm/°C
	2613-I Hot and Cold sides	1600±400 ppm/°C
VOLTAGE GRADIENT:		> 25V/mm