

DuPont 5461

PLATABLE TERMINATION FOR CHIP RESISTOR APPLICATIONS

Preliminary Data Sheet

Product Description

Specially developed for chip resistors applications, DuPont™ 5461 is a platable Lead-free*, Cadmium-free* silver C1 termination that meets the needs of low cost, high performance and green product.

Product Benefits

- Lead free*
- Cadmium free*
- High acid resistance
- Excellent solder leach resistance with Lead-free solder
- Good control of the printed line shape for small chip sizes
- Platable
- Fast firing, 850°C/30min profile
- Cost effective
- Compatible with 00X1Z(00X0) resistor series

*Lead and Cadmium 'free' as used herein means that lead and cadmium is not an intentionally added to the referenced product. Trace amounts however may be present.

Processing Substrates

Properties are based on tests using 96% alumina substrates. Substrates of other compositions and from various manufacturers may result in variation in performance properties.

Printing

Properties are based on 5461 printed to $16 \pm 2 \mu\text{m}$ dried thickness using 325 mesh stainless steel screen with an emulsion thickness of approximately $10 \mu\text{m}$.

Drying

Allow wet prints to level for 5-10 minutes at room temperature. Dry 10 minutes at 150°C.

Firing

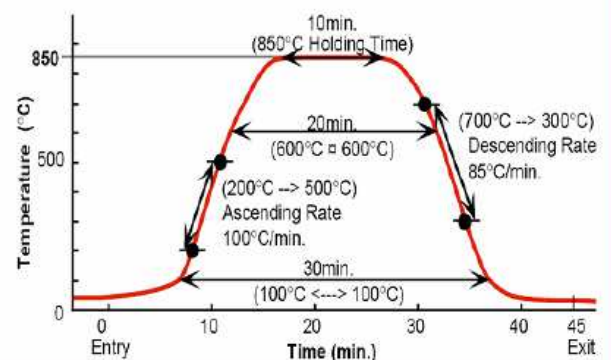
Dried prints should be fired in a belt furnace. Use a 30-minutes cycle with a peak temperature of 850°C x 10 minutes.

Typical Fired Properties

Test	Properties
F.O.G – 4 th scratch	$\leq 20 \mu\text{m}$
F.O.G – 50% point	$\leq 10 \mu\text{m}$
Viscosity (Pa.s) [Brookfield HBT, #14 spindle, UC&S @10rpm, 25°C]	210 – 260
Solids (750°C) [%]	75.6 – 77.6
Resistivity @ $12 \mu\text{m}$ (mΩ/sq)	≤ 10
Adhesion (N)	≥ 18
Thinner	4553

This table shows anticipated typical physical properties for DuPont™ 5461 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Du Pont Standard Profile 850°C x 10 min., 30min.) (Du Pont QA Profile)



Storage and Shelf Life

Containers may be stored in a clean, stable environment at room temperature (between 5°C – 30°C) with their lids tightly sealed. Storage in high temperature (<30°C) or in freezers (temperature <0°C) is NOT recommended as this could cause irreversible changes in the material. The shelf life of compositions in factory-sealed (unopened) containers between (5°C – 30°C) is 6 months from date of shipment.

Safety and Handling

For Safety and Handling information pertaining to this product, read the Material Safety Data Sheet (MSDS).

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