



DUPONT™ 5418

PLATABLE TERMINATION FOR CHIP RESISTOR APPLICATIONS

PRODUCT DESCRIPTION

Specially developed for chip resistors applications, DuPont™ 5418 is a platable lead-free*, cadmium-free* silver palladium C1 termination that meets the needs of a high performance and green product.

PRODUCT BENEFITS

- Superior sulfur resistance by 18% Pd content
- Freedom to design the desired %Pd by blending with 5421E (0.5%Pd) conductor
- Lead free* and cadmium free*
- High acid resistance and platable
- Excellent solder leach resistance with lead-free solder
- Compatible with 00X1Z(00X0) and 0FxxA resistor series

*Lead and Cadmium 'free' as used herein means that lead and cadmium is not 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 5418 printed to 14±2µm dried thickness using 325 mesh stainless steel screen with an emulsion thickness of approximately 10µm.

Drying

Allow wet prints to level for 5-10 minutes at room temperature. Dry 10-15 minutes at 150°C.

Firing

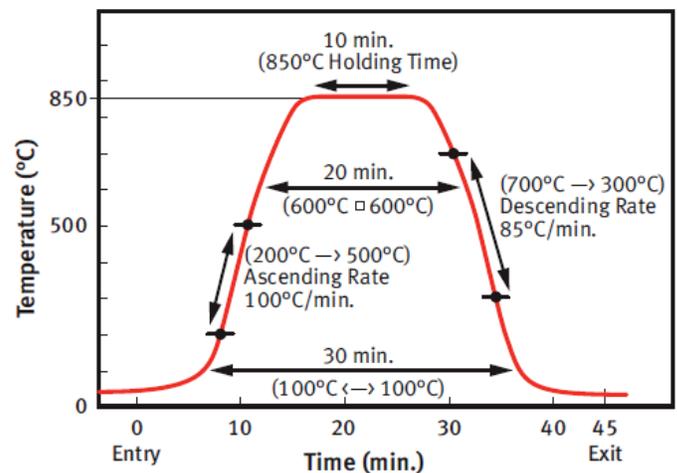
Dried prints should be fired in a belt furnace. Use a 30-minutes cycle with a peak temperature of 850°C x 10 minutes.

Typical Fired Properties

Test	Properties
F.O.G – 4th scratch	≤20µm
F.O.G – 50% point	≤10µm
Viscosity (Pa.s) [Brookfield HBT, #14 spindle, UC&S @10rpm, 25°C]	220 – 290
Solids (1050°C) [%]	75 – 77
Resistivity @ 10µm (mΩ/sq)	≤70
Thinner	4553

This table shows anticipated typical physical properties for DuPont™ 5418 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request..

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



STORAGE AND SHELF LIFE

Containers should be stored, tightly sealed, in a clean, stable environment at room temperature (<25°C). Shelf life of material in unopened containers is six months from date of shipment. Some settling of solids may occur and composition should be thoroughly mixed prior to use.



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SAFETY AND HANDLING

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

FOR MORE INFORMATION ON DUPONT™ 5418 OR OTHER DUPONT MICROCIRCUIT MATERIALS PRODUCTS, PLEASE CONTACT YOUR LOCAL REPRESENTATIVE:

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-5.

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