

DuPont 4933D

2.9:1 SILVER/PALLADIUM (1% PLATINUM) TERMINATION

Technical Data Sheet

Product Description

DuPont 4933D is a cadmium-free* ternary termination designed to resist leaching during hand soldering and provide excellent contact properties. This termination may be employed on parts where platable terminations are not desired but which will be subjected to soldering conditions. DuPont 4933D is compatible with low, medium and high-fire bodies.

Product Benefits

- Cadmium-free*
- Very good solderability
- Excellent cosmetics
- High solder leach resistance

*Cadmium "free" as used herein means that this is not intentionally added to the referenced product. Trace amounts however may be present.

Processing

Application

Palomar-type dipping.

Substrates

Ceramic capacitors bodies.

Typical Drying Conditions

200°C Peak for 15 min. cycle on Palomar belt dryer.

Typical Firing Conditions

710 - 780°C for 6 minutes at peak, 40 minute cycle.

Dipping

DuPont 4933D termination should be thoroughly mixed before use. This is best achieved by slow, gentle hand stirring with a clean, burr-free spatula (flexible plastic or stainless steel) for 1-2 minutes. Dipping should be carried out in a clean, well-ventilated area. Note: Optimum dipping characteristics of DuPont 4933D are generally achieved in the temperature range of 21°C-23°C.

Composition Properties

Test	Properties
Solids (%)	75 - 77
Viscosity (Pa.S) Brookfield RVT, UC&SP @ 10 rpm, 25°C	26 - 36
Thinner	DuPont 8218

This table shows anticipated typical physical properties for DuPont 4933D based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Thinner

DuPont 4933D is optimized for dipping and thinning is not normally required. DuPont 8218 may be used sparingly for slight adjustments to viscosity or to replace evaporation losses. However, the use of too much thinner or the use of a non-recommended thinner may affect the rheological behavior of the material and its dipping characteristics.

Firing

Care must be taken to ensure that any gases/vapors from other chemicals or materials (e.g. halogenated solvents) do not enter the furnace muffle. It is also essential that the air supply to the furnace is clean, dry and free of contaminants. DuPont 4933D termination composition is fired on a 40 minute firing cycle to a peak of 710°C - 780°C, held for 6 minutes. Variations in the peak firing temperature and/or time at the peak temperature may result from over-firing. Care must be taken to assess the appropriate firing conditions for a particular body type.

Drying

140 - 160°C peak for 15 minutes.

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 compositions should be thoroughly mixed prior to use.

Safety and Handling

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

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