

# DuPont 6277V

## SILVER/PALLADIUM CONDUCTOR

### Technical Data Sheet

#### Product Description

DuPont 6277V is a through hole coat microcircuit conductor offering excellent adhesion to sidewalls and fired density and wide processing latitude.

#### Product Benefits

- Broad process latitude: less sensitive to firing temperature, profile, refiring and thickness
- Excellent through-hole printability
- Excellent solderability

#### Processing Printing

DuPont 6277V prints easily using 200-325 mesh stainless steel screens with a 10-15  $\mu\text{m}$  emulsion.

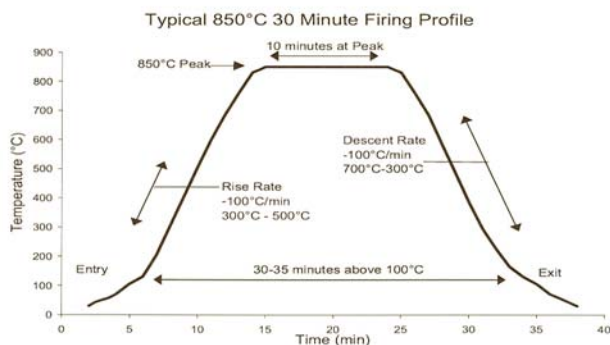
#### Drying

Allow prints to level for 5-10 minutes at room temperature. Then dry for 10-15 minutes at 150°C, in a well ventilated oven or belt dryer.

#### Firing

Fire in well ventilated moving conveyor furnace, in air with a 30-60 minute cycle to a peak temperature of 850°C.

#### Typical 30 minutes fire profile



#### Typical Fired Properties

Test	Properties
Resistivity ( $\text{m}\Omega/\text{sq}$ @ 15 $\mu\text{m}$ )	<18
Fired Thickness ( $\mu\text{m}$ )	9-13
Solder Acceptance <sup>2</sup> on $\text{Al}_2\text{O}_3$	Excellent
Solder Leach Resistance <sup>3</sup> on $\text{Al}_2\text{O}_3$	6-8 cycles
Adhesion <sup>4</sup> Initial (N) after 5000 thermal cycles (N) after 3000 hours at 150°C (N)	34 19 >18

#### Composition Properties

Viscosity (Pa.S) (Brookfield HBT, UC&SP, #14, 10 rpm, 25°C)	100-130
Thinner	DuPont 4553

<sup>2</sup> Excellent characterized as greater than 95%, wetting smooth solder film after 5 seconds dip in 62Sn/36Pb/2Ag solder at 220°C using mildly-activated flux. Equivalent results for 30 or 60 minute firing profiles.

<sup>3</sup> Cycle consists of dip in mildly-activated flux (Alpha 611), 10-second dip in solder (62 Sn/36Pb/2Ag solder at 230°C) and washing off flux residue. Equivalent results for 30 or 60 firing profiles.

<sup>4</sup> 90° wire peel test on 2 mm x 2 mm pads soldered with 6262Sn/36Pb/2 Ag solder at 220°C and mildly-activated flux. Equivalent results for 30 or 60 minute firing profiles. Average values are stated. Thermal Cycle Conditions: -40/+125°C with 30 minutes at each temperature and approximately 10 minute transition time between temperatures.

This table shows anticipated typical physical properties for DuPont 6277V based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

## 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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