

DuPont QS300

PLATINUM/SILVER CONDUCTOR COMPOSITION

Technical Data Sheet

Product Description

Silver platinum conductor composition DuPont QS300 is a fine line microcircuit composition providing high yields with lines as small as 75µm. It is designed to be printed twice using a screen printer, with pattern recognition and advanced screens.

Product Benefits

- High print yield with 75µm lines
- Excellent thermal cycle adhesion and long term aged adhesion
- High conductivity
- Excellent solder wetting
- Cofireable with DuPont QM44

Processing

Printing

The composition should be thoroughly mixed before use. This is best achieved by slow, gently, hand stirring with a clean burr-free spatula (flexible plastic or stainless steel) for 1-2 minutes. Care must be taken to avoid air entrapment. Printing should be performed in a clean and well ventilated area. Note: optimum printing characteristics area generally achieved in the room temperature range of 20°C - 23°C. It is therefore important that the material, in its container, is at this temperature prior to commencement. Class 10,000 printing area is recommended for building complex hybrids and multilayer

Drying

Allow prints to Level for 10 minutes at room temperature, then dry for 15 min. at 150°C

Firing

Firing is conducted in a belt furnace with standard 850°C/30 min. profile.

Typical Physical Properties

Test	Properties
Fired Thickness (µm)	8 - 14
Resistivity ¹ (mΩ/sq)	4.5
1000 hrs aged adhesion ² (N)	> 20
Solder Acceptance ²	Excellent
Composition Properties	
Viscosity (Pa.S) (Brookfield HBT, UC&SP, 50 rpm, 25°C)	200 - 300
Coverage (cm ² /g) ¹	95
Thinner	DuPont 7502

¹ Based on average fired thickness of 10µm

² All test performed on 96% alumina substrates

This table shows anticipated typical physical properties for DuPont QS300 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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