DuPont 5402S
PLATABLE C2 EDGE TERMINATION FOR CHIP RESISTOR APPLICATIONS

Product Description
Especially developed for chip resistor applications, DuPont 5402S is a platable silver C2 edge termination that meets the needs of low cost and high performance.

Product Benefits
- Low temperature firing
- Excellent dipping performance
- Excellent cosmetics
- Excellent post-plating adhesion
- High acid resistance
- Cadmium free*

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

Processing
Substrates
Reported properties are based on tests with 96% alumina substrates. Substrates of other compositions may yield variations in performance properties.

Dipping
Paste rheology of DuPont 5402S has been optimized for dipping of the chip resistor edges after the alumina substrate has been broken into strip form. While thinning is not normally recommended, DuPont 9245 thinner may be used for minor adjustments.

Drying
After dipping, parts should be allowed to level at room temperature for 5-10 minutes and then dried at 150°C for 10 minutes.

Composition Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids (%)</td>
<td>70.0 - 72.0</td>
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<tr>
<td>Viscosity (Pa.S)</td>
<td>38 - 48</td>
</tr>
<tr>
<td>Thinner</td>
<td>DuPont 9245</td>
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</tbody>
</table>

This table shows anticipated typical physical properties for DuPont 5402S based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Firing
Fire to peak temperature of 600 - 620°C for 10 minutes at peak with a total firing cycle of 30 minutes. Allow adequate time (10 minutes) during heating cycle to avoid entrapment of organics in the fired film.

Typical 600°C 10 Minute Profile

This graph shows the typical 600°C 10 minute profile for the firing process. The profile includes a 30°C/min ascent from 300-600°C, followed by a 10 min @ 600°C dwell, and a 60°C/min descent from 600-300°C.
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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