**Product Description**
DuPont BQ242 is a polymer thick film (PTF) carbon ink designed for carbon working electrodes in amperometric biosensors. It is suitable for biosensor manufacture by screen-printing on polyester film substrates.

**Product Benefits**
- High electrochemical activity suitable for uses with a variety of electron-transfer mediators.
- High conductivity
- Excellent adhesion to polyester film
- Superior carbon electrode wettability
- Halogen-free polymeric binder
- Good ink rheology for screen printing

**Processing**

**Printing**
DuPont BQ242 should be mixed thoroughly with a plastic or stainless steel spatula before use. Typical printing thickness: 0.8 mil on 180 mesh screen, 0.5 mil on 280 mesh screen.

**Drying**
Allow drying times of 2-5 minutes for well-ventilated ovens or conveyor dryers at 130°C. For box oven drying, allow 5-15 minutes at 130°C.

**Clean-up Solvent**
Ethylene glycol diacetate or other glycol methyl ether acetate.

**Composition Properties**

<table>
<thead>
<tr>
<th>Test</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids (150°C) (%)</td>
<td>38 - 40</td>
</tr>
<tr>
<td>Viscosity (Pa.S)</td>
<td>30 - 70</td>
</tr>
<tr>
<td>Coverage (cm²/g @ 0.5 mil)</td>
<td>250 - 280</td>
</tr>
<tr>
<td>Density (g/cc)</td>
<td>1.23</td>
</tr>
<tr>
<td>Thinner</td>
<td>DuPont 8240</td>
</tr>
</tbody>
</table>

**Typical Physical Properties**

<table>
<thead>
<tr>
<th>Test</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet Resistivity (Ω/sq/mil@0.5 mil)</td>
<td>20 - 25</td>
</tr>
<tr>
<td>Cross Hatch Adhesion (B)</td>
<td>5</td>
</tr>
</tbody>
</table>

This table shows anticipated typical physical properties for DuPont BQ242 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
DuPont BQ Series compositions should be stored in a clean, stable environment at room temperature (~25°C) with their lids tightly sealed. Storage in high temperature (>30°C) or in freezers (<0°C) is NOT recommended as this could cause irreversible changes in the material. The shelf life of compositions in factory-sealed (unopened) containers stored under room temperature (~25°C) conditions is 6 months from the date of shipment. Some settling of solids may occur over time, so composition should be stirred thoroughly before use.

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

For more information on DuPont BQ242 or other DuPont Microcircuit Materials products, please contact your local representative:

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