Spin-on-Glass P-230

<table>
<thead>
<tr>
<th>Elements of Interest</th>
<th>Key Element atoms/cm³</th>
<th>Key Element % in Film</th>
</tr>
</thead>
<tbody>
<tr>
<td>Si, O, P</td>
<td>P, 3x10²¹</td>
<td>Phosphorus</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Viscosity</th>
<th>Thickness</th>
<th>Refractive Index</th>
<th>Shel l Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 cps</td>
<td>Coats 2800 Å at 3000 rpm</td>
<td>1.46</td>
<td>20°C 3 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4°C 9 months</td>
</tr>
</tbody>
</table>

**Benefits**

- Medium phosphorus doping level
- Easy shipping without POCl₃ complications
- Lower maintenance and cost of ownership
- High purity materials
- Uniform coatings
- Lower melting point than silica alone
- Stable processing independent of flow rates
- Available with impurity specification of less than 1 ppm or less than 50 ppb

**Typical Application**

This is a standard phosphorous doped silicate glass very typical for semiconductor applications. It begins curing at about 200°C to give a less dense but solid film. It continues to become increasingly stronger as bake temperatures rise to 650°C or higher. We recommend baking at the highest temperature the material will see in any post processing. For doping applications the glass is often removed after the drive-in procedure.

The phosphorous in the glass matrix can act as a getter for sodium and other mobile ions. This reduces the effective concentration of unwanted ionic species.

**Packaging**

- 240ml
- 500ml
- 1 l
- 2.5 l
- 4 l

**Alternative Products**

P-210
P-220
P-240
P-250

**Elements Available to Add**

- As
- Sb
- Bi
- Blends of two or more elements
- Other elements available for compound semiconductor use
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