Spin-on-Glass Sb-380

Elements of Interest

<table>
<thead>
<tr>
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<th>Key Element atoms/cm³</th>
<th>Key Element % in Film</th>
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<tbody>
<tr>
<td>In, Si, O</td>
<td>Sb, 4E+21</td>
<td>Sb</td>
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Viscosity

- 0.9 cps

Thickness

- Coats 1500 Å at 3000 rpm
- Refractive Index = 1.40

Shelf Life

- 20°C 3 months
- 4°C 9 months

Benefits

- Highest antimony dopant profiles
- Uniform Coatings
- High purity materials
- Available with impurity specification of less than 1 ppm or less than 50 ppb.
- Lower maintenance and cost of ownership
- Stable processing independent of flow rates

Custom target concentration levels available

Typical Application

The concentration of the source for driving-in is typically high; allowing the range of 2E+19 (in Si) high concentration of dopant during drive in as the dopant diffuses into the substrate. Sb-380 adds a level of dopant consistent with the final desired concentration. It begins curing at about 200°C to give a less dense but solid film. It continues to become increasingly dense as bakes continue to 650°C or higher. We recommend baking at the highest temperature the material will see in any post processing. Typical diffusion temperature for Si substrate is 1200-1250°C. Lower temperatures are utilized for 3-5 and 2-6 materials. For doping applications the glass is often removed after drive in.

Available in

- 240ml
- 500ml
- 1 L
- 2.5 L
- 4 L

Alternative Products

Other target concentration levels available

Alternate Elements to Add

- As
- Sb
- Bi
- Ga
- Al
- Sn

Other elements are available for compound semiconductor use
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