Desert Silicon, Inc.

Enduring Efficiency Through Process, Properties, and Materials

|  |  |  |
| --- | --- | --- |
| **Spin-on-Glass P-240** | | |
| **Elements of Interest**  Si, O, P | **Key Element atoms/cm3**  P, 4E+21 | **Key Element % in Film**  Phosphorus |
| **Viscosity**  1.2 cps | **Thickness**  Coats 200 nm at 3000 rpm | **Shelf Life**  20°C 3 months  4°C 9 months |

**Benefits**

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

|  |  |
| --- | --- |
| **Typical Application**  This is a standard silicate phosphorus doped 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 bakes continue to 650°C or higher. We recommend baking at the highest temperature the material will see in any post processing if the material is to remain with the part. For doping applications the glass is often removed after drive in.  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-230  P-250 |
| **Elements Available to Add**  -As  - Sb  - Bi  - Blends of two or more elements  - Other elements available for compound semiconductor use |

Although all statements and information presented in this document are believed to be accurate and reliable, they are presented without warranty or guarantee of any kind, express or implied. Information presented does not relieve the end user from carrying out their own tests to determine suitability for use in their application. User assumes all risk and liability for product use or information and results obtained. Suggestions for use of material and processes are made without representation or warranty that any such is free from patent infringement and are not recommendations for patent infringement. Please see MSDS for information regarding health and safety of material use.