Desert Silicon, Inc.

Enduring Efficiency Through Process, Properties, and Materials

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| **Spin-on-Glass P-640** | | |
| **Elements of Interest**  Si, O, P | **Key Element atoms/cm3**  P, 4E+21 | **Key Element % in Film**  Phosphorus |
| **Viscosity**  1.3 cps | **Thickness**  Coats 210 nm at 3000 rpm | **Shelf Life**  20°C 3 months  4°C 9 months |

**Benefits**

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| • Highest 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. |

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| **Typical Application**  This is a standard silicate phosphorous 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-240 |
| **Elements Available to Add**  -As  - Sb  - Bi  - Blends of two or more elements  - Other elements available for compound semiconductor use |

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