Spin-on Glass ZnAs-650

Elements of Interest
Si, Zn, As

Key Element atoms/cm³
Zn, 5 x 10²¹
As, 1 x 10²¹

Key Element % in Film
Zinc, Arsenic

Viscosity, n (635nm)
0.90 cps, 1.48

Thickness
Coats 2100 Å at 3000 rpm
Refractive Index = 1.486

Shelf Life
20°C 3 months
4°C 9 months

Benefits
• High zinc concentration coupled with arsenic diffusion barrier to avoid out gassing of doping material from substrate
• For final target concentration ranges from 5 x 10¹⁷ to 5 x 10¹⁹ of Zinc and Arsenic
• Uniform Coatings
• High Purity materials
• Available with impurity specification of less than 1 ppm or less than 50 ppb
• Lower melting point than silica alone

Typical Application
The concentration of the source for driving-in is typically high, in the range of 5x10²¹ Zn atoms/cm³ and 1X10²¹ As atoms/cm³. Thus leaving a high concentration of dopant right at the surface. During the drive-in procedure, the dopant diffuses into the substrate.

Keeping a doping layer with substrate dopant in it can prohibit the loss of the doping species as 3-5 and 2-6 substrates tend to partially decompose during the higher temperature diffusion process (compensates for out diffusion of As from GaAs for example).

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

Alternative Products
Zn640
Zn-655
ZnAsP-320
Other target concentration levels available

Alternative Elements
- S
- Se
- Te
- Other elements available for compound semiconductor use
Spin-on Glass ZnAs-650

Although all statement and information presented in this document are believed to be accurate and reliable, they are presented without warranty or guarantee of any kind, expressed 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 use product 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.