

Spin-on Glass Zn-245

Elements of Interest Si, Zn, O, Cl	Key Element atoms/cm³ Zn, 2×10^{21}	Key Element % in Film Zinc
Viscosity, η (635nm) 0.90 cps, 1.48	Thickness Coats 1800 Å at 3000 rpm	Shelf Life 20°C 3 months 4°C 9 months

Benefits

- Diffusion barrier to avoid out gassing of doping material from substrate
- For final target concentration ranges from 2×10^{16} to 2×10^{18} of Zinc
- Uniform Coatings
- 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 2×10^{21} Zn atoms/cm³. Thus leaving a high concentration of dopant right at the surface. During the drive-in procedure, the dopant diffuses into the substrate. It is also at risk to diffuse out of the substrate since it is so near the surface. Keeping a capping layer with dopant can prohibit the loss of the doping species. The basic capping layer can be a silicate layer such as NDG-2000. Zn-245 adds a level of dopant consistent with the final desired concentration. This addition of Zinc eliminates any concentration gradient that may exist and prohibits the loss of zinc through the surface layer.

Packaging

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

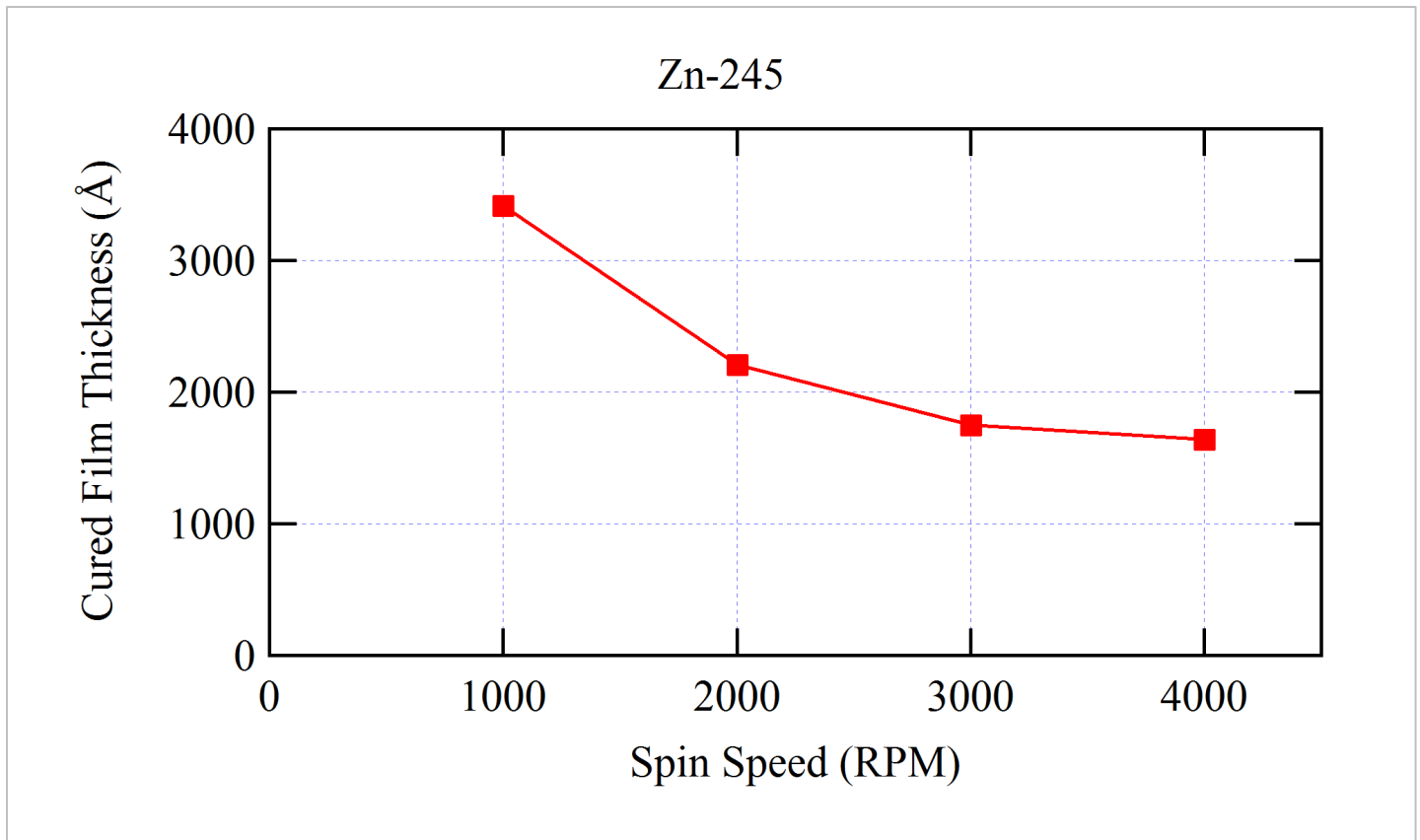
Alternative Products

NDG-2000
Zn-640
Zn-655
Other target concentration levels available

Alternate Elements

- As
- Sb
- Bi
- Other elements available for compound semiconductor use

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