

## Spin-on-Glass P-190HP

<b>Elements of Interest</b> Si, O, P	<b>Key Element atoms/cm<sup>3</sup></b> P, 1X10 <sup>19</sup>	<b>Key Element % in Film</b> Phosphorus
<b>Viscosity</b> 1.2 cps	<b>Thickness</b> Coats 150 nm at 3000 rpm	<b>Shelf Life</b> 20°C 3 months 4°C 9 months

### Benefits

- Lower phosphorus doping level
- Easy shipping without POCl<sub>3</sub> complications
- Lower maintenance and cost of Ownership
- High purity materials
- Uniform Coatings
- Lower melting point than silica alone
- Stable processing independent of flow rates
- 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. 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

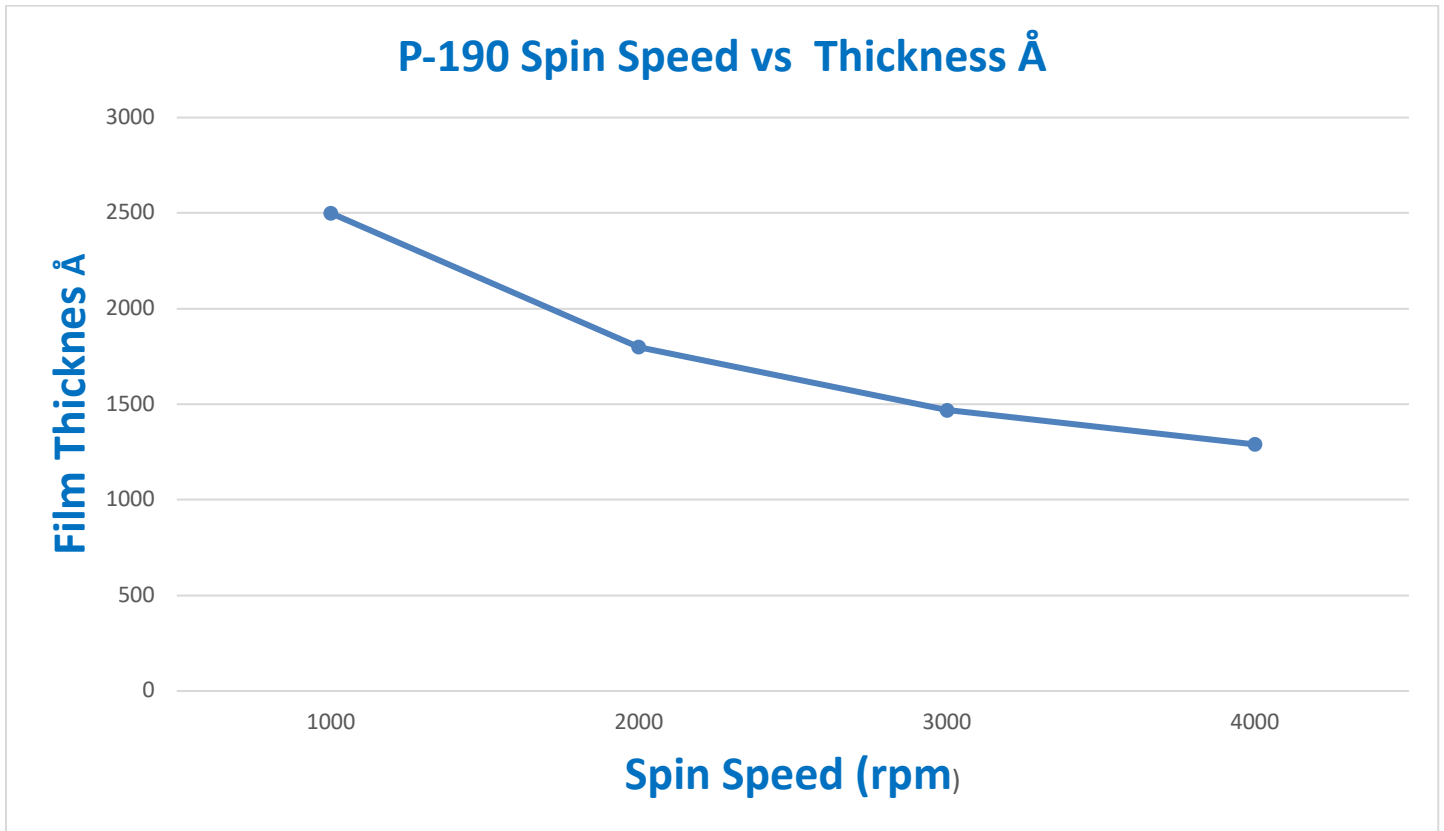
### Alternative Products

- P-210
- P-220
- P-230
- P-250

### Alternate Elements to Add

- As
- Sb
- Bi
- Blends of two or more elements
- Other elements available for compound semiconductor use

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