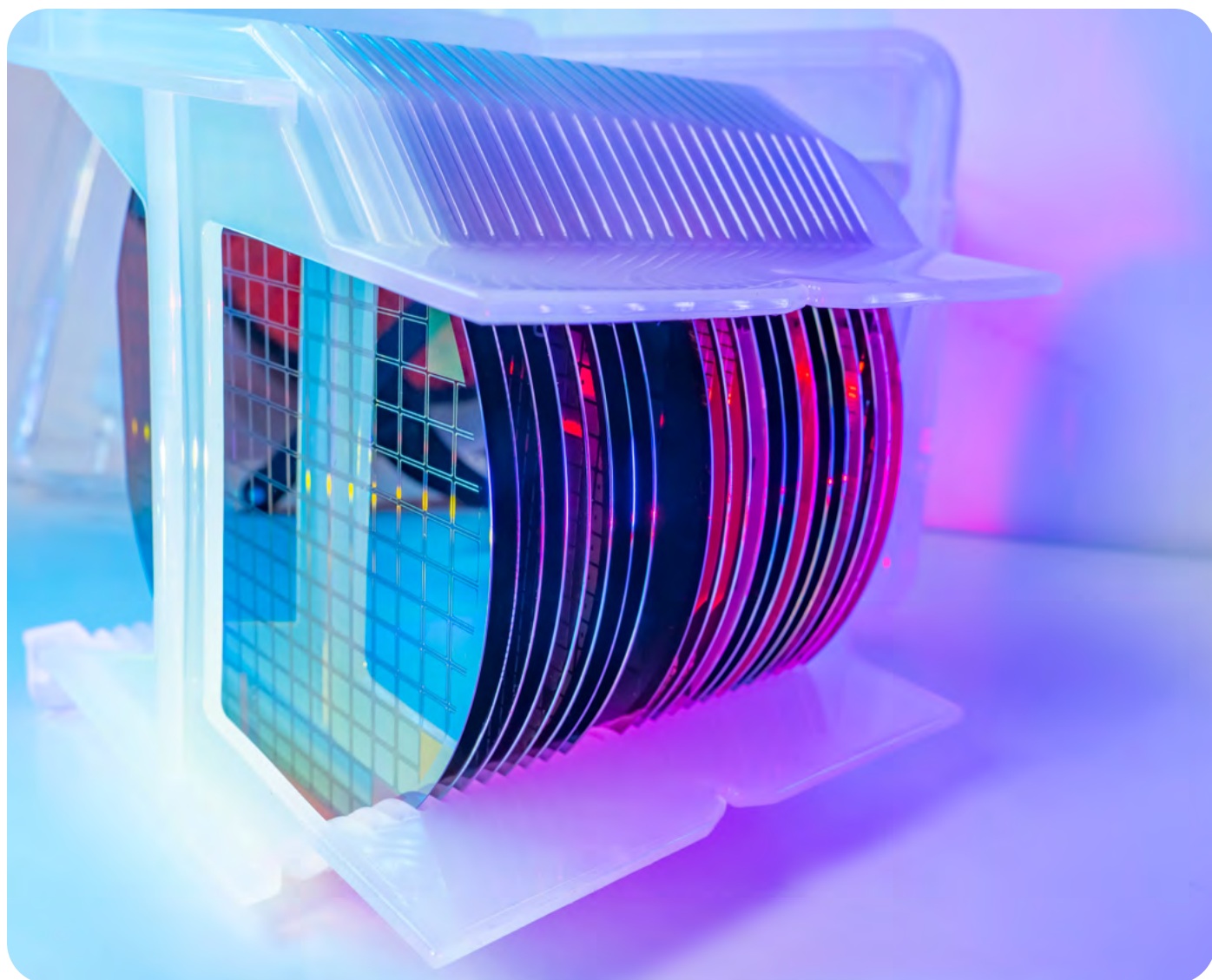


ACCUSPIN® BORON SPIN-ON DOPANT

ELECTRONIC POLYMERS



ACCUSPIN® BORON SPIN-ON DOPANT

PMD-BPSG PLANARIZATION

BENEFITS

- Industry proven performance in analog CMOS, power, discrete and bipolar devices
- Lower maintenance cost than gas or liquid sources
- Lower cost of ownership than source wafer doping or outsourced ion implanting
- Better control of sheet resistance non-uniformity to within 1% within a wafer and 2% wafer to wafer

OVERVIEW

The ACCUSPIN B-XXX Spin-on dopant series are borosilicate (B-30, B-40, B-60) and boron nitrogen (B-75X, B-150) polymers designed for p-type base, isolation, p-type emitter diffusion, diode and deep p junction diffusion. The B-XXX series has been in large volume IC production for over 25 years. B-XXX can be applied using standard spin coaters.

ACCUSPIN B-XXX materials provide a lower cost of ownership than other dopant sources and reduce the need for costly diffusion furnace tube cleaning or replacement, required when using gas or liquid boron dopants.

Because the B-XXX materials are Spin-on borosilicates or boron nitrogen, diffusion is more uniform during the drive-in process so sheet resistance and junction depths are repeatable. The use of a Spin-on process eliminates non-uniformity issues due to changes in gas flows of boron sources and differing boron sheet resistance from placement in the diffusion furnace.

A Spin-on process also increases diffusion furnace throughput because every wafer boat slot can be used for production wafers.

APPLICATIONS

- Bipolar
- Analog CMOS
- Discretes
- Power

Accuglass P-TTY is suitable for metal and poly planarization, partial and non-etchback applications in a CVD/SOG/CVD sandwich structure. ACCUGLASS P-TTY can also be used for overcoat passivation.

FEATURES

Thickness

Product

B-30
B-40
B-60
B-75X
B-150

Thickness Range

4,100Å – 5,100Å
5,170Å – 5,570Å
4,400Å – 4,950Å
2,900Å – 3,600Å
4,500Å – 5,100Å

Material Properties

B-30 Shelf Life @ 0-4°C: 6 months

B-40 Shelf Life @ 0-4°C: 4 months

B-60 Shelf Life @ 0-4°C: 3 months

B-75X Shelf Life @ 20°C:* 6 months

B-150 Shelf Life @ 20°C:* 12 months

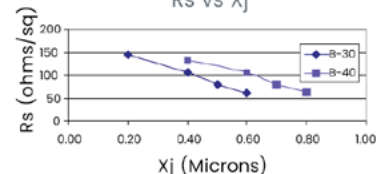
*Room Temperature

Bottle sizes available:

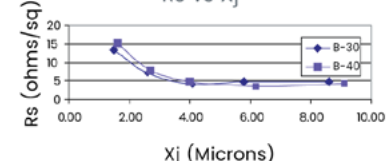
125ml, 250ml, 500ml, 1L, 2L, 4L

SHEET RESISTANCE VS. JUNCTION DEPTH

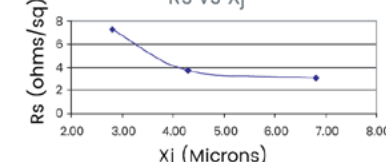
B-30 and B-40 Base Diffusion
Rs vs Xj



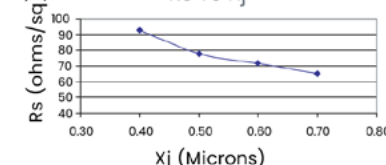
B-30 and B-40 Isolation Diffusion
Rs vs Xj



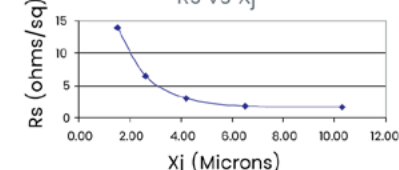
B-75X Base Diffusion
Rs vs Xj



B-150 Base Diffusion
Rs vs Xj



B-150 Isolation Diffusion
Rs vs Xj



For More Information,
[Click Here](#)

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