

## Pyrolytic Boron Nitride (PBN)

Exceeds or Meets Standard Industrial Specifications  
 Economical and Competitive Alternative for Saint-Gobain

### Benefits

- Low Thermal Expansion Coefficient
- Relatively Low Density
- High Thermal Conductivity
- Extreme Hardness

### Applications

- Crystal growth - VGF, VB/HB, LEC crucibles
- MBE – crucibles and components
- Photovoltaic (CIGS) – boat and components
- MOCVD (HB-LED) – heater components
- OLED – crucibles
- Electrical – high temperature isolation



### PBN Products

- PBN Crucibles
- PBN Boats
- PBN Plates
- PBN-PG Heaters

| Material                              | PBN                       |
|---------------------------------------|---------------------------|
| Bulk Density                          | 2.0-2.19g/cm <sup>3</sup> |
| Max. Working Temperature              | 2400 °C                   |
| Volume Resistivity (Ω·cm)             | 3.11*10 <sup>11</sup>     |
| Thermal Conductivity (W/M·k)          | 43-60                     |
| Tensile Strength (N/mm <sup>2</sup> ) | 153.86 (parallel)         |
| Bending Strength (N/mm <sup>2</sup> ) | 243.63 (parallel)         |
| Dielectric Strength (RT) (KV/mm)      | 56                        |

# Pyrolytic Boron Nitride Crucibles

| Products      | Image   | Applications  |
|---------------|---|---|
| VGF Crucibles |   | Synthesis of GaAs, InP single crystal   |
| MBE Crucibles |  | Synthesis of semiconductor crystal and III-V compounds                                |
| LEC Crucibles |  | Synthesis of GaAs, InP, GaP single crystal, semiconductor crystal and III-V compounds |



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