



GaN Substrates: Semi-Polar

Kyma’s semi-polar bulk GaN substrates are free of stacking faults and further improve device epitaxy by reducing dislocation density by 10,000x and doubling thermal conductivity when compared to other non-native substrates. GaN substrates provide an alternative to multi-step nucleation processes, allowing customers to:

- Eliminate interlayers
- Eliminate processing steps
- Improve device yield and reliability



Orientation: (10-11), (10-13), and (20-21) \pm 1.0°
 Conduction Type: N-type
 Resistivity: <5 Ohm-cm
 Front Surface Finish: Epi-ready, RMS <0.5 nm
 Back Surface Finish: Optical polish, RMS <1 μ m
 Dislocation Density: <5 x 10⁶ cm⁻²
 Edge Exclusion Area: 1 mm

Available Sizes: 5 mm x 10 mm and irregular bars
 Available Grades: Production, Research and Rider
 Available Thickness: 475 μ m (\pm 25 μ m)

Grade:	Production	Research	Rider
Useable Surface Area:	100%	\geq 90%	<90%

*Other polishing options available: double-side CMP, double-side optical
 Other thickness, size and offcut options available*