

SILICON CARBIDE (SiC) SUBSTRATE SPECIFICATION
3-Inch (76.2mm) Diameter, Semi-Insulating
Prime Grade

Property	Value	Tolerance	Units
Diameter	76.2	± 0.5	mm
Edge Exclusion	3		mm
Center Thickness	370 μm	± 30	μm
Polytype	6H or 4H	> 95% of area	
Micropipe Density	< 30		cm ⁻²
Face Orientation	C-plane (0001); on-axis	± 0.5	deg
Front Surface (Si-face) Finish	Epiready™		
Scratches by Bright Light	Cumulative Length < 7cm		
Back Surface (C-face) Finish	Optical Polish Standard		
Warp	< 25		μm
Bow	< 25		μm
TTV	< 10		μm
Flat Length: Primary	22	±2	mm
Flat Length: Secondary	11	±2	mm
Flat Orientation: Primary	Perpendicular to (11-20) plane	± 1	deg
Flat Orientation: Secondary	90° CW from primary flat	± 5	deg
Laser Mark	Carbon Face		
Location & Text	Per SEMI M55		
Edge	Beveled, as per SEMI specs		
Packaging	Single- or Multi-Wafer Carrier		
Cracks	None		
Cumulative Area Defects	< 10% Area		
Dopant	SI Vanadium Doped (> 1E5)		Ohm*cm

^[1] Epiready™ CMP polish is suitable for GaN epitaxial growth