

**SILICON CARBIDE (SiC) SUBSTRATE SPECIFICATION**  
**150mm Diameter, 4H Polytype, n-Type**  
**Prime Grade**

Property	Value	Tolerance	Units
Diameter	150.0	±0.2	mm
Edge Exclusion	3		mm
Center Thickness	350 μm	± 25	μm
Polytype	4H	> 95% of area	
Micropipe Density	< 1		cm <sup>-2</sup>
Face Orientation	4.0° off-axis towards <11-20>	± 0.5	deg
Front Surface (Si-face) Finish	EpiReady™		
Scratches by Bright Light	Cumulative Length < 10		cm
Back Surface (C-face) Finish	Optical Polish (standard)		
Warp	≤ 50		μm
Bow	≤ 40		μm
TTV	≤ 15		μm
Flat Length: Primary	47.5	±2	mm
Flat Length: Secondary	None		
Flat Orientation: Primary	Perpendicular to (11-20) plane	± 1	deg
Flat Orientation: Secondary	N/A		
Laser Mark Location & Text	Carbon Face Per SEMI Specs (being drafted)		
Edge	Rounded, as per SEMI specs		
Packaging	Single wafer container or Multi-Wafer Cassette		
Cracks	None		
Cumulative Area Defects	< 10% Area		
Dopant	n-type Nitrogen (0.015 to 0.025)		Ohm-cm

<sup>[1]</sup> EpiReady™ CMP polish is suitable for GaN or SiC epitaxial growth