



Wide Bandgap Materials Group

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**SILICON CARBIDE (SiC) SUBSTRATE SPECIFICATION
 3 INCH (76.2mm) DIAMETER, 6H POLYTYPE, ON-AXIS ORIENTATION
 Prime Grade**

Property	Value	Tolerance	Units
Diameter	76.2	± 0.5	mm
Edge Exclusion	2		mm
Center Thickness	400 µm or Customer Specification	± 30	µm
Polytype	6H polytype	>95% of area	
Micropipe Density			
n-type	< 100		cm ⁻²
Semi-Insulating	< 100		cm ⁻²
Face Orientation	c-plane (0001); on-axis	± 0.5	deg
Front Surface (Si-face): Finish ^[1]	Epiready™ ^[1]		
Scratches by Bright Light	Cumulative Length < 7cm		
Back Surface (C-face): Finish	Customer Specified Fine Ground Standard		
Bow	< 25		µm
Primary Flat Orientation	Perpendicular to (11-20) plane	± 1	deg
Secondary Flat Orientation	90° CW from primary flat	± 5	deg
Carbon Face Laser Mark Location & Text	Per customer specification		
Edge	Beveled or Rounded		
Packaging	Single wafer Fluoroware™ container		
Cracks	None		
Cumulative Area Defects	< 10% Area		
Dopant	n-type Nitrogen SI Vanadium Doped		

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