

# High Purity Semi-Insulating SiC 4" wafer



Grade	Production Grade+	Research Grade	Dummy Grade
Diameter	100.0 mm + 0.0/-0.5mm		
Surface Orientation	<0001> ± 0.2°		
Primary Flat Orientation	{10 $\bar{1}$ 0} ± 5.0°		
Secondary Flat Orientation	90.0° CW from Primary flat ± 5°, silicon face up		
Primary Flat Length	32.5 mm ± 2.0 mm		
Secondary Flat Length	18.0 mm ± 2.0 mm		
Micropipe Densities	≤ 1 cm <sup>-2</sup>	≤ 5 cm <sup>-2</sup>	≤ 50 cm <sup>-2</sup>
Resistivity	≥ 1E7 Ω•cm		(area 75%) ≥ 1E7 Ω•cm
Thickness	500.0 μm ± 25.0 μm or 350.0 μm ± 25.0 μm		
TTV	≤ 10μm		≤ 15μm
Bow	≤ 25μm		≤ 30μm
Warp	≤ 45μm		
Surface Roughness	CMP Si Face Ra < 0.3 nm (10 μm × 10 μm)		CMP Si Face Ra < 0.5 nm (10 μm × 10 μm)
Edge Chips/Indents by Diffuse Lighting	None permitted	Qty.2 <1.0mm width & depth	