

4inch High Purity Semi-Insulating 4H SiC Substrate

Parameter	Unit	Specification Value		Remark
Grade		Production Grade	Dummy Grade	
Diameter	mm	100.0 +0.0/-0.5		
厚度Thickness	μm	500.0 ± 25.0		
Surface Orientation		{0001} ± 0.2°		
Primary Flat Orientation		<11-20> ± 5.0°		
Secondary Flat Orientation		90.0° CW from primary ± 5.0°, silicon face up		
Primary Flat Length	mm	32.5 ± 2.0		
Secondary Flat Length	mm	18.0 ± 2.0		
Micropipe Density	cm ²	≤ 0.1	≤ 5	
Resistivity	Ω·cm	≥ 1E+10	≥ 1E+5	
TTV	μm	≤ 5	≤ 10	
Bow (Absolute Value)	μm	≤ 10	≤ 20	
Warp	μm	≤ 15	≤ 35	
LTV (max, 5mm*5mm)	μm	≤ 2	NA	
Surface Finish	mm	Double side polish, Si epi-face CMP, C face optical polish		
Surface Roughness	mm	CMP Si Face Ra ≤ 0.15 nm		
Polytype Area by polarized light		None permitted	Cumulative area < 30%	
Cracks by high-intensity light		None permitted		
Scratches by high-intensity light		None permitted		
Edge chips		None permitted	Qty.2 ≤ 1.0 mm width and depth	
Area Contamination by high-intensity light		None permitted		
Packaging		Multi-wafer Cassette or Single Wafer Container		