



Crystal Properties			
PARAMETER	UNITS	SPECIFICATION	NOTE
Crystalline structure	-	Monocrystalline	
Growth technique	-	Czochralski (Cz)	
Orientation	-	$\langle 100 \rangle \pm 1^\circ$	
Slice orientation	Degrees	$0N \pm 1.0^\circ$	
Electrical Properties			
PARAMETER	UNITS	SPECIFICATION	NOTE
Conductance type	-	N-type	
Dopant	-	Phosphorous	
Resistivity	Ω -cm	10 - 30	
Geometrical Properties			
PARAMETER	UNITS	SPECIFICATION	NOTE
Diameter	mm	100 ± 0.50	
Thickness	μ m	525 ± 25	
TTV	μ m	≤ 5	
Warp	μ m	≤ 30	
Bow	μ m	≤ 30	
Flats	-	2 per SEMI Standard	
Primary flat length	mm	32.50 ± 2.50	
Primary flat orientation	-	$\langle 110 \rangle \pm 1^\circ$	
Secondary flat location	-	$180^\circ \pm 5^\circ$ from primary flat	
Secondary flat length	mm	18.00 ± 2.00	
Surface Appearance			
PARAMETER	UNITS	SPECIFICATION	NOTE
Front surface	-	Polished	
Back surface	-	Etched	
Frontside particles $\geq 0.30 \mu$ m (LLS)	No./wafer	≤ 30	
Nominal edge exclusion	mm	3.0	
Wafer Identification			
PARAMETER	UNITS	SPECIFICATION	NOTE
Lasermark	-	None	
Surface Metals			
APPLICABLE METALS	UNITS	SPECIFICATION	NOTE
Al, Ca, Cl, Cr, Cu, Fe, K, Na, Ni, Zn	Atoms/cm ²	$\leq 5E10$	