M10/G12 MONO SILICON WAFER

N-TYPE

Our in-house manufacturing ensures complete control over the production process, allowing us to deliver customized, high-quality silicon wafers tailored to your exact specifications.

METICULOUSLY CRAFTED PERFORMANCE

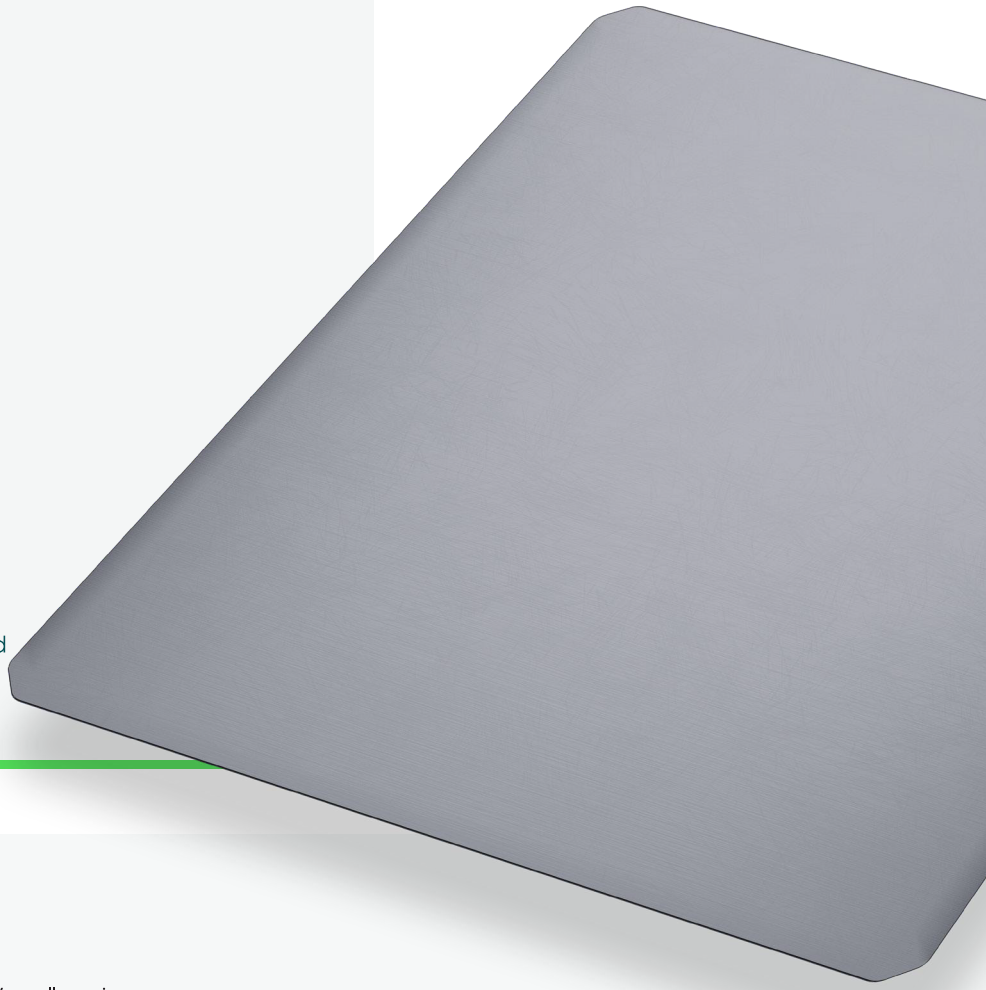
Advantages

Tailored Precision

With our expertise and attention to detail, we deliver tailored silicon wafers that meet the specific dimensions, surface specifications, and other unique preferences of our clients with unparalleled accuracy

Low-Oxygen High-Temperature (LOHT)

Our silicon wafers are produced using a mature manufacturing process that seamlessly integrates with cutting-edge equipment, ensuring efficient and reliable production



Reliably Built.

Imperial Star is a solar manufacturer committed to empowering PV excellence in America. With a rich, 10-year manufacturing legacy, Imperial Star delivers 3 GW of PV Module capacity through its integrated and dependable supply chain.

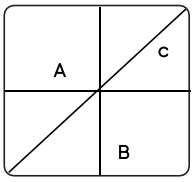
Material Properties

Properties	Specification	Inspection Method
Conductivity Type	N-type	N Testing Machine
Wafer Grade	A	Wafer Inspection System
Growth Method	CZ	
Oxygen Contents (ppma)	≤6E+17 at/cm³	FTIR (ASTM F121-83)
Carbon Contents (ppma)	≤5E+16 at/cm³	FTIR (ASTMF123-91)
Surface Orientation	<100>±3。	X-ray Diffraction Method
Side Orientation	<010>, <001>±3°	X-ray Diffraction Method
Etch Pit Display (Dislocation Density)	≤500cm³	Preferential Etch Techniques (ASTM F47-88)

Electrical Properties

Properties	Specification	Inspection Method
Conductivity Type	N-type	N Testing Machine
Wafer Grade	A	
Resistivity (Ω.cm)	0.3- 2.1	Wafer Inspection System
Lifetime(μs)	≥1000/μs	QSSPC/PCD method

Geometric Dimensions

Properties	Specification	Inspection Method/Criteria
Square	M10 182* 182*φ247mm	
Square	M10 182.2* 182.2*φ247mm	
Square	G12 210*210*φ295mm	
Square	G12+ 218.2*218.2*φ306.6mm	
Rectangle	M10-L 182.2*183.75*φ247mm M11-L 182.2*191.6*φ262.5mm	A/B (length): ±0.25mm, C (diagonal): ±0.25mm Inspection Instruments: Calipers, Wafer Inspection System

Thickness and Appearances

Properties	Specification	Inspection Method
Thickness	150-10/+20μm 145-10/+20μm 140-10/+20μm	Wafer Inspection System
Total Thickness Variation (TTV)	≤27μm	Wafer Inspection System
Warp	≤40μm	Wafer Inspection System
Side Length	size ±0.25mm	Wafer Inspection System
Diagonal Length	size ±0.25mm	Wafer Inspection System
Verticality	90±0.2°	Wafer Inspection System
Scratch/Notch/Hole	None	Wafer Inspection | System/Visual
Contamination/Haze/Residual	None	Wafer Inspection | System/Visual
Chip	Length ≤500μm | Depth ≤300μm	Wafer Inspection | System/Visual
Saw Mark	≤500cm³	Wafer Inspection System
Micro Cracks	None	Wafer Inspection | System/Visual
Line Texture Direction	Horizontal	Wafer Inspection | System/Visual