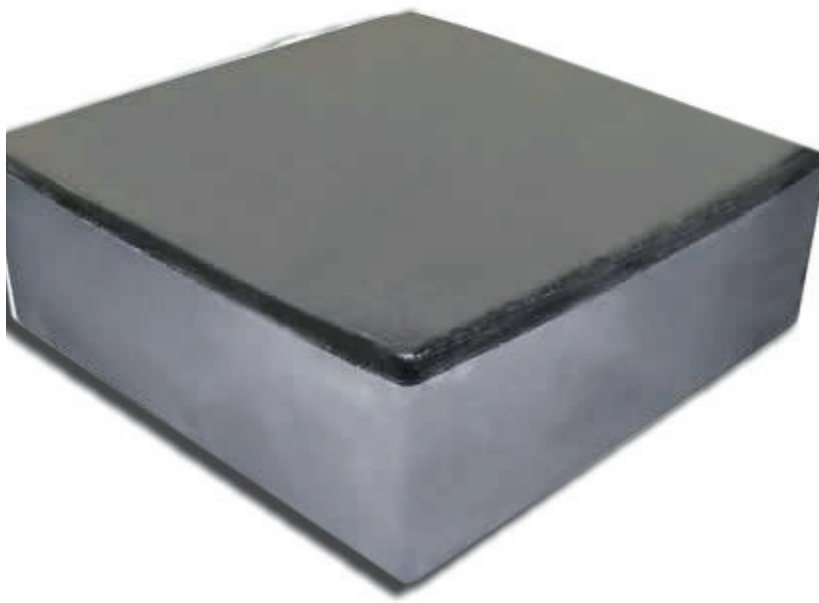


Polycrystalline Silicon Ingot



1. Material Properties

Crystal growth method: DSS

Type: P

Dopant: boron



2. Electrical Properties

Resistivity: $1 - 3 \Omega \cdot \text{cm}$

Minority carrier lifetime: $\geq 6.5 \mu\text{s}$

Oxygen content: $\leq 8 \times 10^{17} \text{ atoms/cm}^3$

Carbon content: $\leq 5 \times 10^{17} \text{ atoms/cm}^3$



3. Crystal Defects

Crack or hole: none



4. Geometry Properties

Brick diameter: $219.2 \pm 0.4 \text{ mm}$

Brick side length: $156 \pm 0.4 \text{ mm}$

Angle between adjacent sides: $90^\circ \pm 0.1^\circ$

Overview

With its own solar equipment research and development strength, Red Solar has upgraded the manufacturing facility to that of 680kg and 800kg high efficiency ingot casting technology, which can achieve a shorter production time (typically 70 hours for 810kg ingot) and lower power consumption (6 kwh/kg on average). Our crystal silicon ingot product has high efficiency, vertical orientation and uniform grain. The defect and dislocation density are largely reduced. The ingot can help improve the solar cell efficiency by 0.3% – 0.5% under the same cost, thus providing a feasible solution for cost reduction and efficiency improvement of crystalline silicon solar cell.