



Cambridge Energy Resources™

## Featured Wafer Products – Mono & Multi Crystalline Wafers

PARAMETER	UNIT	TYPE/VALUE Mono-Crystalline	TYPE/VALUE Multi-Crystalline
<b>1. Crystal Properties</b>			
Crystal structure		Mono-crystalline	Multi-crystalline
Growing Method		Czochralski	Directional solidification
Crystal Orientation		<100> +/- 2 deg	<100> +/- 2 deg
Crystal quality		Dislocation free, no cracks or pin holes visible to naked eye	Dislocation free, no cracks or pin holes visible to naked eye
<b>2. Electronic Properties</b>			
Resistivity	Ωcm	0.5- 3.0; 3.0-6.0	0.5- 3.0
Minority Carriers Lifetime	μs	> 10	> 2.0
<b>2. Chemical Properties</b>			
Dopant		Boron (p-type)	Boron (p-type)
Carbon Content	at/cm3	< 8x10 <sup>16</sup>	< 5x10 <sup>16</sup>
Oxygen Content *	at/cm3	< 1x10 <sup>18</sup>	< 1x10 <sup>18</sup>
<b>3. Physical &amp; Dimensional</b>			
Dimensions	mm	125X125±0.5,156X156±0.5	125X125±0.5,156X156±0.5
Diagonal	mm	205±1.0	
Thickness	μm	180±20; 200±20	180±20; 200±20
TTV (Taper)	μm	< 40	< 40
Bow	μm	< 35	< 35
Surface Saw Damage Depth	μm	< 20 (< 15 typically)	< 20 (< 15 typically)