

ZnO Single Crystal Substrate

< TYPICAL PROPERTIES >

Purity (wt%)	>99.99
Impurity (wt%)	Mg: <0.0005 Cu: <0.0030 Al: <0.0030 Fe: <0.005 Si: 0.0030 Ca: <0.0005 Ti: 0.0010 Ag: <0.0002
Crystal Structure	Hexagonal : a=3.252Å, c=5.313Å
Growth Method	Hydrothermal
Hardness	4 moh scale
Density	5.7g/cm ³
Melt Point	1975°C
Specific heat	0.125 cal/gm
Thermoelectric Constant	1200 μV/°K@300°C
Thermal conductivity	0.006 cal/cm/ °K
Thermal expansion	2.90×10 ⁻⁶ / °K
Transmission range	0.4 -0.6μ > 50% at 2mm
Dislocation Density	<0001> plane <100/cm ²

< AVAILABILITY OF STANDARD SUBSTRATE >

Orientation	<0001>
Polished surface	EPI polished on one side or two sides to Ra < 10 Å
Standard Size	10×10 mm, 5×5 mm and 20×20 mm
Thickness	0.35 mm, 0.5 mm and 1.0 mm

* Special size and orientation are available upon request.