

Silicon Windows (Si)

Fairfield Crystal's silicon windows (Si) are manufactured from optical grade silicon and are designed to be used in precision optical systems for the 1.2 - 7 μ m spectral region. Due to its low cost and low density silicon is ideal for weight sensitive applications. The optical transmission is high with little or no distortion of the transmitted signal. Circumference is ground and both edges are beveled. Windows do not have an anti-reflection coating. It is a material of choice for infrared optical elements in a variety of applications from infrared night vision to infrared thermal imaging systems. It is commonly used as a substrate material for infrared reflectors and silicon is frequently used for laser mirrors because of its high thermal conductivity.



Substance	Form	Diameter Range*	Thickness Range*	Transmission Range (μ m)	Standard Surface Finish**
Silicon	Single Crystal	10 to 75 mm	1 to 10 mm	1.2 to 7.00	40/20 S/D

*Special orders available

**Standard finish – other finish available upon request

PROPERTIES

Transmission Range	1.2 to 7.0 microns
Density	2.329 g/cm ³
Refractive Index	3.4223 @ 5 μ m
Melting Point	1420° C
Surface Accuracy	40/20 S/D
Surface Flatness	1 λ @ 632.8nm
Parallelism	< 3 arc minutes
Material	Optical Grade Silicon
Coating	None
Knopp Hardness	1150

Hazard Labeling: Not regulated by Department of Transportation (DOT)

Shipping Classification: UPS or FedEx: Ground, Air

Fairfield Crystal Technology will be pleased to quote you price and delivery.

Contact us

Sales email: atimmerman@fairfieldcrystal.com

Telephone: (860) 354-2111 ext 200

Fax: (860) 354-3093