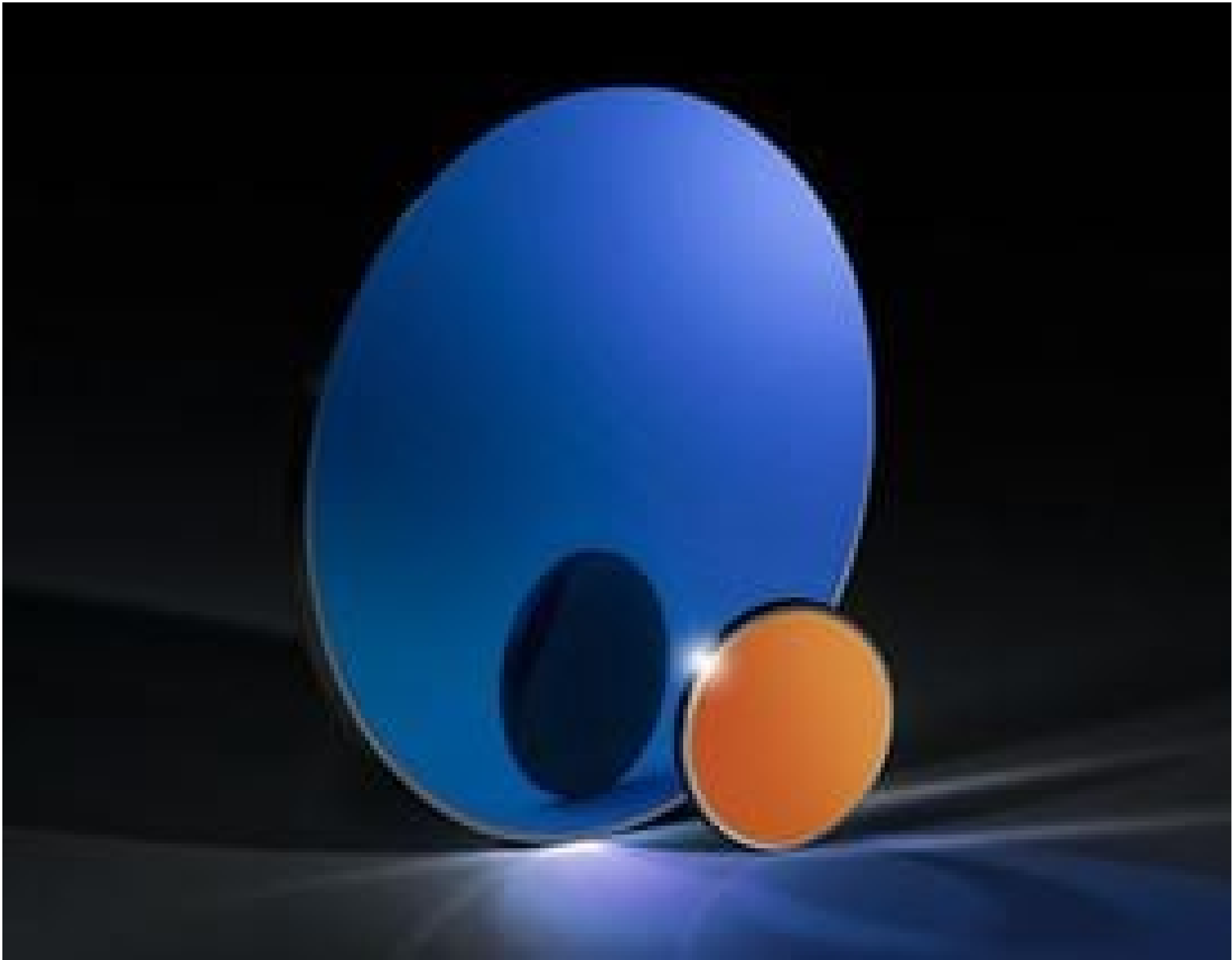


12.7mm Dia., 2mm Thick, Uncoated, ISP Optics Silicon (Si) Window | SI-W-12-2

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1

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A\$140⁰⁰

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General

SI-W-12-2

Model Number:

Protective Window

Type:

Physical & Mechanical Properties

10.79

Clear Aperture CA (mm):

12.70 +0.00/-0.13

Diameter (mm):

2.00 ±0.13	Thickness (mm):
<3	Parallelism (arcmin):
Protective as needed	Bevel:
85	Clear Aperture (%):
Fine Ground	Edges:
0.27	Poisson's Ratio:
140	Young's Modulus (GPa):
1,150.00	Knoop Hardness (kg/mm²):

Optical Properties

Uncoated	Coating:
Silicon (Si)	Substrate: ☐
3.422 @ 5µm	Index of Refraction (n _d):
40-20	Surface Quality:
1200 - 7000	Wavelength Range (nm):
2λ	Surface Flatness (P-V):

Material Properties

2.33	Density (g/cm³):
2.55	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):

Regulatory Compliance

Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 240:

Product Details

- Transmission from 1.2 - 7µm
- Available Uncoated or HDAR Coated for 3 - 5µm
- Ideal for Weight Sensitive Applications

ISP Optics Silicon (Si) Windows provide transmission in the Near-Infrared (NIR) and Mid-Wave Infrared (MMIR) from 1.2 - 7µm. Silicon features a Knoop Hardness of 1150, making it harder and less brittle than Germanium. A High-Durability Anti-Reflection (HDAR) coating option increases the durability of the substrate while significantly improving transmission from 3 - 5µm, enabling use in harsh environments. ISP Optics Silicon (Si) Windows are ideal for weight-sensitive IR applications due to its low density of 2.329 g/cm³, which is half as dense as Germanium and Zinc Selenide. These windows are ideal for NIR imaging applications and are important for detection of sources radiating at a black body temperature of 700K.