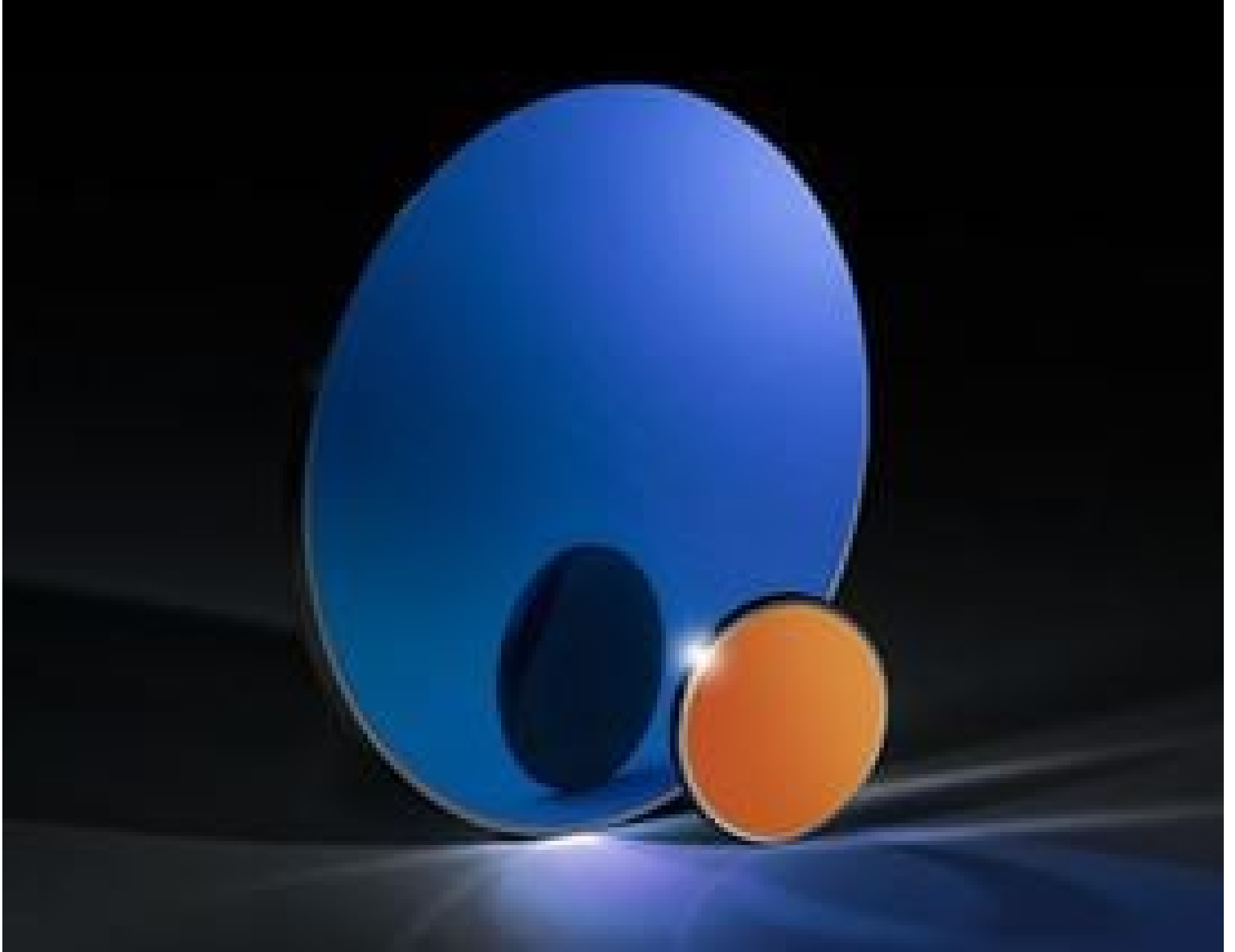


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# 12.7mm Dia., 1mm Thick, Uncoated, ISP Optics Silicon (Si) Window | SI-W-12-1

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Stock #24-623 CLEARANCE 20+ In Stock

⊖ 1 ⊕ €87<sup>50</sup>

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## Product Downloads

### General

SI-W-12-1 **Model Number:**

Protective Window **Type:**

Crystal **Type of Window:**

### Physical & Mechanical Properties

**Clear Aperture CA (mm):**

10.79	
12.70 +0.00/-0.13	<b>Diameter (mm):</b>
1.00 ±0.13	<b>Thickness (mm):</b>
<3	<b>Parallelism (arcmin):</b>
Protective as needed	<b>Bevel:</b>
85	<b>Clear Aperture (%):</b>
Fine Ground	<b>Edges:</b>
0.27	<b>Poisson's Ratio:</b>
140	<b>Young's Modulus (GPa):</b>
1,150.00	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b>

## Optical Properties

Uncoated	<b>Coating:</b>
<a href="#">Silicon (Si)</a>	<b>Substrate:</b> <input type="checkbox"/>
3.422 @ 5µm	<b>Index of Refraction (n<sub>d</sub>):</b>
40-20	<b>Surface Quality:</b>
1200 - 7000	<b>Wavelength Range (nm):</b>
2λ	<b>Surface Flatness (P-V):</b>

## Material Properties

2.33	<b>Density (g/cm<sup>3</sup>):</b>
2.55	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>

## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</b>
<a href="#">Compliant</a>	<b>Reach 240:</b>

## 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 (MMR) 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/cm<sup>3</sup>, 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.