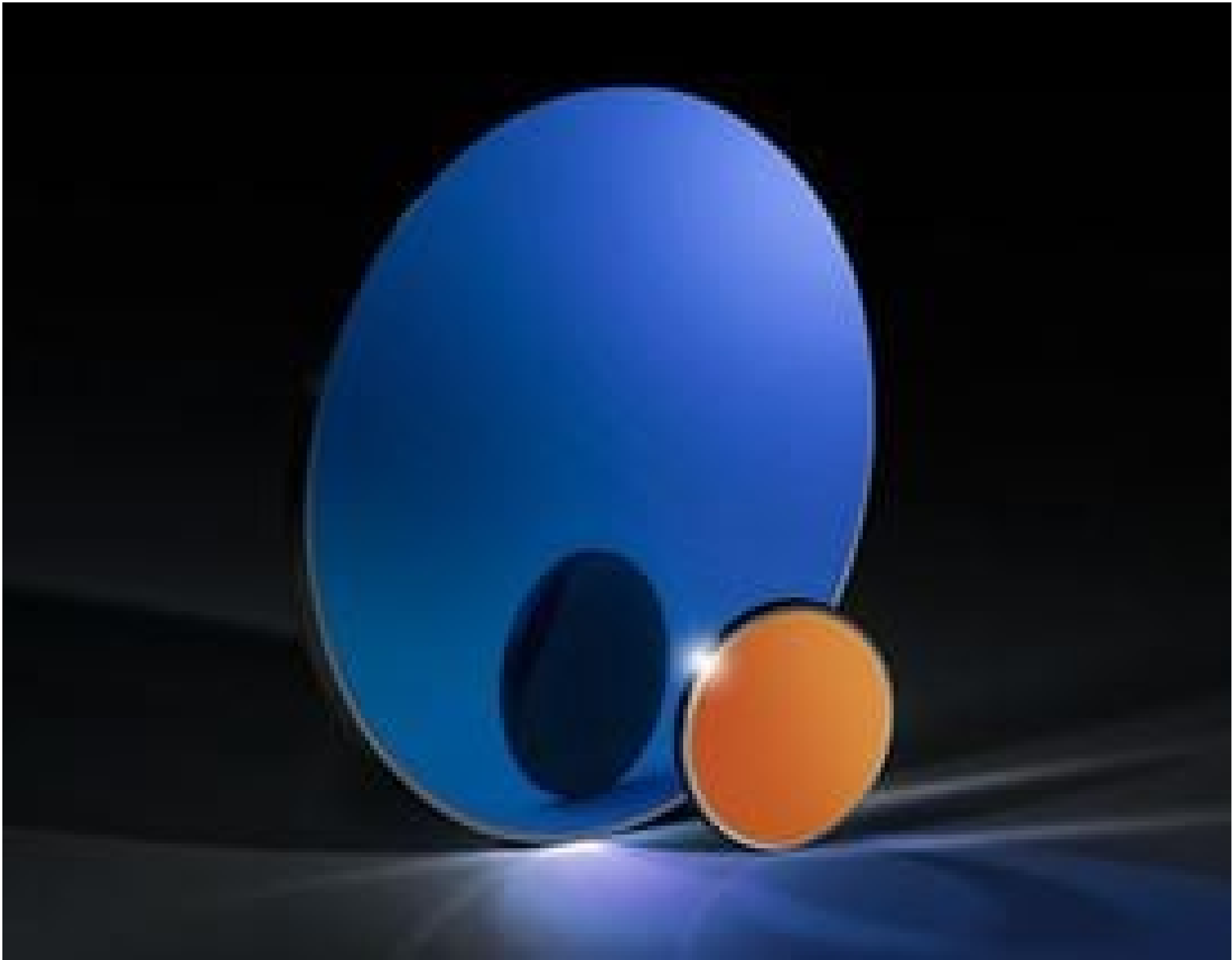


12.7mm Dia., 1mm Thick, Uncoated, ISP Optics Silicon (Si) Window | SI-W-12-1

See More by [ISP Optics](#)



Stock **#24-623** CLEARANCE **20+ In Stock**

-

1

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£70<sup>00</sup>

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Product Downloads

General

|                   |               |
|-------------------|---------------|
| Protective Window | Type:         |
| SI-W-12-1         | Model Number: |

Physical & Mechanical Properties

|                      |                     |
|----------------------|---------------------|
| Protective as needed | Bevel:              |
|                      | Clear Aperture (%): |

|                   |                          |
|-------------------|--------------------------|
| 85                |                          |
| 10.79             | Clear Aperture CA (mm):  |
| 12.70 +0.00/-0.13 | Diameter (mm):           |
| 1.00 ±0.13        | Thickness (mm):          |
| Fine Ground       | Edges:                   |
| 1,150.00          | Knoop Hardness (kg/mm²): |
| <3                | Parallelism (arcmin):    |
| 0.27              | Poisson's Ratio:         |
| 140               | Young's Modulus (GPa):   |

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

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| Material Properties |                                                              |
| 2.55                | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |
| 2.33                | Density (g/cm³):                                             |

|                           |                             |
|---------------------------|-----------------------------|
| Regulatory Compliance     |                             |
| <a href="#">Compliant</a> | RoHS 2015:                  |
| <a href="#">View</a>      | Certificate of Conformance: |
| <a href="#">Compliant</a> | 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.