

**TECHSPEC® 50mm Dia. x 3.0mm Thickness 1.65-3µm Coated Silicon Window**



TECHSPEC Silicon (Si) Windows

Stock #17-203 **20+ In Stock**

⊖ 1 ⊕ £307<sup>20</sup>

**ADD TO CART**

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-10       | £307.20 each                  |
| Qty 11-25      | £272.00 each                  |
| Qty 26-49      | £256.80 each                  |
| Need More?     | <a href="#">Request Quote</a> |

**!** Prices shown are exclusive of VAT/local taxes

Product Downloads

**General**

Protective Window **Type:**

Crystal **Type of Window:**

**Physical & Mechanical Properties**

Clear Aperture CA (mm):

|                      |  |
|----------------------|--|
| 45.00                | <b>Diameter (mm):</b>                      |
| 50.00 +0.0/-0.1      |  |
|                      | <b>Thickness (mm):</b>                     |
| 3.00 ±0.1            |  |
|                      | <b>Parallelism (arcmin):</b>               |
| <3                   |  |
|                      | <b>Bevel:</b>                              |
| Protective as needed |  |
|                      | <b>Edges:</b>                              |
| Fine Ground          |  |
|                      | <b>Poisson's Ratio:</b>                    |
| 0.27                 |  |
|                      | <b>Young's Modulus (GPa):</b>              |
| 140                  |  |
|                      | <b>Knoop Hardness (kg/mm<sup>2</sup>):</b> |
| 1,150.00             |  |

## Optical Properties

|  |   |
|--|---|
|  | <b>Coating:</b>                             |
| BBAR (1650-3000nm)   |   |
|  | <b>Substrate:</b> <input type="checkbox"/>  |
| Silicon (Si)   |   |
|  | <b>Index of Refraction (n<sub>d</sub>):</b> |
| 3.422 @5μm   |   |
|  | <b>Surface Quality:</b>                     |
| 60-40  |   |
|  | <b>Coating Specification:</b>               |
| R <sub>avg</sub> <1% @ 1650 - 3000nm<br>R <sub>abs</sub> <2% @ 1650 - 3000nm |   |
|  | <b>Wavelength Range (nm):</b>               |
| 1650 - 3000  |   |
|  | <b>Surface Flatness (P-V):</b>              |
| 1λ   |   |

## Material Properties

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

## Regulatory Compliance

|                  |                                    |
|------------------|------------------------------------|
| <b>Compliant</b> | <b>RoHS 2015:</b>                  |
| <b>View</b>      | <b>Certificate of Conformance:</b> |
| <b>Compliant</b> | <b>Reach 235:</b>                  |

### Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- Transmission from 1.2 - 7μm
- Available Uncoated or AR Coated for 1.65 - 5μm
- Ideal for Weight Sensitive Applications

TECHSPEC® Silicon (Si) Windows manufactured from optical grade silicon are popular for the 1.2 - 7μm spectral region due to their low cost and low density. Due to its low density (half that of [germanium](#) or [zinc selenide](#)), silicon is ideal for weight sensitive applications, especially those in the 1.65 - 5μm region. Density is 2.329 g/cm<sup>3</sup> and Knoop Hardness is 1150, making it harder and less brittle than germanium. TECHSPEC® Silicon (Si) Windows available uncoated or AR coated for 1.65 - 5μm. These crystal windows are offered in diameters ranging from 10 – 76.20mm.

## Technical Information



## Compatible Mounts

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