

TECHSPEC® 50mm Dia. x 3.0mm Thickness 3-5µm Coated Silicon Window



TECHSPEC Silicon (Si) Windows

Stock **#47-943** 12 In Stock

-

1

+

£348<sup>80</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-10       | £348.80 each                  |
| Qty 11-25      | £307.20 each                  |
| Qty 26-49      | £291.20 each                  |
| Need More?     | <a href="#">Request Quote</a> |

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

Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):

45.00

Diameter (mm):

|                      |                             |
|----------------------|-----------------------------|
| 50.00 +0.0/-0.1      |                             |
| 3.00 ±0.1            | Thickness (mm):             |
| <3                   | Parallelism (arcmin):       |
| +0.0/-0.1            | Dimensional Tolerance (mm): |
| Protective as needed | Bevel:                      |
| 90.00                | Clear Aperture (%):         |
| Fine Ground          | Edges:                      |
| 0.27                 | Poisson's Ratio:            |
| 140                  | Young's Modulus (GPa):      |
| 1,150.00             | Knoop Hardness (kg/mm²):    |

Optical Properties

|                                  |                                        |
|----------------------------------|----------------------------------------|
| BBAR (3000-5000nm)               | Coating:                               |
| Silicon (Si)                     | Substrate: <input type="checkbox"/>    |
| 3.422 @ 5µm                      | Index of Refraction (n <sub>d</sub> ): |
| 60-40                            | Surface Quality:                       |
| R <sub>avg</sub> <3.0% @ 3 - 5µm | Coating Specification:                 |
| 3000 - 5000                      | Wavelength Range (nm):                 |
| 1λ                               | Surface Flatness (P-V):                |

Material Properties

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

Regulatory Compliance

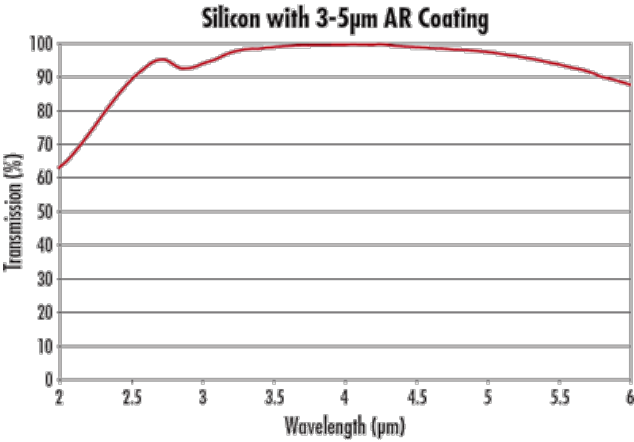
|           |                             |
|-----------|-----------------------------|
| Compliant | RoHS 2015:                  |
| View      | Certificate of Conformance: |
| Compliant | REACH 241:                  |

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/cm³ 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



## Custom

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](#).

## Compatible Mounts