

TECHSPEC<sup>®</sup> 40mm Dia., 2mm Thick, NIR II Coated, λ/4 Fused Silica Window



TECHSPEC<sup>®</sup> λ/4 UV Fused Silica Windows

Stock **#72-399** **2 In Stock**

-

1

+

S\$276<sup>30</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | <b>S\$276.30</b> each         |
| Qty 6-25       | <b>S\$219.54</b> each         |
| Qty 26-49      | <b>S\$206.10</b> each         |
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SPECIFICATIONS

General

Protective Window

Type:

Physical & Mechanical Properties

|                                                                                                                        |                                                              |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
|                                                                                                                        |                                                              |
| Protective as needed                                                                                                   | Bevel:                                                       |
| 90                                                                                                                     | Clear Aperture (%):                                          |
|                                                                                                                        |                                                              |
| 36.00                                                                                                                  | Clear Aperture CA (mm):                                      |
|                                                                                                                        |                                                              |
| 40.00 +0.00/-0.10                                                                                                      | Diameter (mm):                                               |
|                                                                                                                        |                                                              |
| 2.00 ±0.10                                                                                                             | Thickness (mm):                                              |
|                                                                                                                        |                                                              |
| Fine Ground                                                                                                            | Edges:                                                       |
|                                                                                                                        |                                                              |
| 522.00                                                                                                                 | Knoop Hardness (kg/mm²):                                     |
|                                                                                                                        |                                                              |
| <1                                                                                                                     | Parallelism (arcmin):                                        |
|                                                                                                                        |                                                              |
| 0.16                                                                                                                   | Poisson's Ratio:                                             |
|                                                                                                                        |                                                              |
| 73                                                                                                                     | Young's Modulus (GPa):                                       |
|                                                                                                                        |                                                              |
| Optical Properties                                                                                                     |                                                              |
|                                                                                                                        |                                                              |
| 67.8                                                                                                                   | Abbe Number (v <sub>d</sub> ):                               |
|                                                                                                                        |                                                              |
| NIR II (750-1550nm)                                                                                                    | Coating:                                                     |
|                                                                                                                        |                                                              |
| R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm | Coating Specification:                                       |
|                                                                                                                        |                                                              |
| 1.458                                                                                                                  | Index of Refraction (n <sub>d</sub> ):                       |
|                                                                                                                        |                                                              |
| <a href="#">Fused Silica</a> (Corning 7980)                                                                            | Substrate:                                                   |
|                                                                                                                        |                                                              |
| 40-20                                                                                                                  | Surface Quality:                                             |
|                                                                                                                        |                                                              |
| λ/4                                                                                                                    | Transmitted Wavefront, P-V:                                  |
|                                                                                                                        |                                                              |
| 750 - 1550                                                                                                             | Wavelength Range (nm):                                       |
|                                                                                                                        |                                                              |
| 8 J/cm² @ 1064nm, 10ns                                                                                                 | Damage Threshold, Reference: <input type="checkbox"/>        |
|                                                                                                                        |                                                              |
| Material Properties                                                                                                    |                                                              |
|                                                                                                                        |                                                              |
| 0.52 (+5 to +35°C)<br>0.57 (0 to +200°C)<br>0.48 (-100 to +200°C)                                                      | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |
|                                                                                                                        |                                                              |
| 2.20                                                                                                                   | Density (g/cm³):                                             |
|                                                                                                                        |                                                              |
| Regulatory Compliance                                                                                                  |                                                              |
|                                                                                                                        |                                                              |
| <a href="#">Compliant</a>                                                                                              | RoHS 2015:                                                   |
|                                                                                                                        |                                                              |
| <a href="#">View</a>                                                                                                   | Certificate of Conformance:                                  |
|                                                                                                                        |                                                              |
| <a href="#">Compliant</a>                                                                                              | REACH 241:                                                   |
|                                                                                                                        |                                                              |

## PRODUCT DETAILS

- Available Uncoated or BBAR Coated for UV, Visible, and NIR
- Ideal for Imaging Applications
- Circular and Rectangular Sizes from 5 to 200mm
- [1λ](#) or [λ/10](#) UV Fused Silica Windows Also Available

TECHSPEC® λ/4 UV Fused Silica Windows are manufactured with 40-20 surface quality and λ/4 transmitted wavefront error specifications, making them ideal for imaging applications. Featuring UV fused silica substrates, these windows provide high transmission from the ultraviolet (UV) through the visible and near-infrared (NIR). Broadband anti-reflection (BBAR) coating options are available to minimize reflection losses and increase transmission. TECHSPEC λ/4 UV Fused Silica Windows are used in optical imaging applications, in low to medium powered laser applications, and as protective windows, especially in applications requiring transmission of UV light.

## TECHNICAL INFORMATION



## FUSED SILICA

### Uncoated Fused Silica Typical Transmission



Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.

[Click Here to Download Data](#)

### Fused Silica with MgF<sub>2</sub> Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 1.75\%$  @ 400 - 700nm (N-BK7)

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

### Fused Silica with UV-AR Coating Typical Transmission

|                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Typical Transmission</p>                                          | <p>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\% @ 250 - 425\text{nm}</math><br/><math>R_{avg} \leq 0.75\% @ 250 - 425\text{nm}</math><br/><math>R_{avg} \leq 0.5\% @ 370 - 420\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |
| <p>Fused Silica with UV-VIS Coating<br/>Typical Transmission</p>    | <p>Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\% @ 350 - 450\text{nm}</math><br/><math>R_{avg} \leq 1.5\% @ 250 - 700\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                          |
| <p>Fused Silica with VIS-EXT Coating<br/>Typical Transmission</p>  | <p>Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\% @ 350 - 700\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                  |
| <p>Fused Silica with VIS-NIR Coating<br/>Typical Transmission</p>  | <p>Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 0.25\% @ 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |
| <p>Fused Silica with VIS 0° Coating<br/>Typical Transmission</p>   | <p>Typical transmission of a 3mm thick fused silica window with VIS</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | <p>0° (425-675nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                         |
| <p><b>Fused Silica with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math><br/><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>           |
| <p><b>Fused Silica with NIR I Coating</b><br/><b>Typical Transmission</b></p>    | <p>Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                     |
| <p><b>Fused Silica with NIR II Coating</b><br/><b>Typical Transmission</b></p>   | <p>Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |

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](#).

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