

TECHSPEC<sup>®</sup> 12.5mm Dia., 3mm Thick, UV-AR Coated,  $\lambda$ /4 Fused Silica Window



TECHSPEC<sup>®</sup>  $\lambda$ /4 UV Fused Silica Windows

Stock **#25-638** 1 In Stock

-

1

+

A\$220<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | A\$220.80 each                |
| Qty 6-25       | A\$176.00 each                |
| Qty 26-49      | A\$164.80 each                |
| Need More?     | <a href="#">Request Quote</a> |

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General

Protective Window

Type:

Physical & Mechanical Properties

11.25

Clear Aperture CA (mm):

12.50 +0.00/-0.10

Diameter (mm):

|                      |                          |
|----------------------|--------------------------|
| 3.00 ±0.10           | Thickness (mm):          |
| <1                   | Parallelism (arcmin):    |
| Protective as needed | Bevel:                   |
| 90                   | Clear Aperture (%):      |
| Fine Ground          | Edges:                   |
| 0.16                 | Poisson's Ratio:         |
| 73                   | Young's Modulus (GPa):   |
| 522.00               | Knoop Hardness (kg/mm²): |

|                                                                                                                       |                                                       |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Optical Properties                                                                                                    |                                                       |
| UV-AR (250-425nm)                                                                                                     | Coating:                                              |
| Fused Silica (Corning 7980)                                                                                           | Substrate: <input type="checkbox"/>                   |
| 1.458                                                                                                                 | Index of Refraction (n <sub>d</sub> ):                |
| 40-20                                                                                                                 | Surface Quality:                                      |
| λ/4                                                                                                                   | Transmitted Wavefront, P-V:                           |
| 67.8                                                                                                                  | Abbe Number (v <sub>d</sub> ):                        |
| R <sub>abs</sub> ≤1.0% @ 250 - 425nm<br>R <sub>avg</sub> ≤0.75% @ 250 - 425nm<br>R <sub>avg</sub> ≤0.5% @ 370 - 420nm | Coating Specification:                                |
| 250 - 450                                                                                                             | Wavelength Range (nm):                                |
| 3 J/cm² @ 355nm, 10ns                                                                                                 | Damage Threshold, Reference: <input type="checkbox"/> |

|                                                                   |                                                              |
|-------------------------------------------------------------------|--------------------------------------------------------------|
| Material Properties                                               |                                                              |
| 2.20                                                              | Density (g/cm³):                                             |
| 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): |

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

## 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

- 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

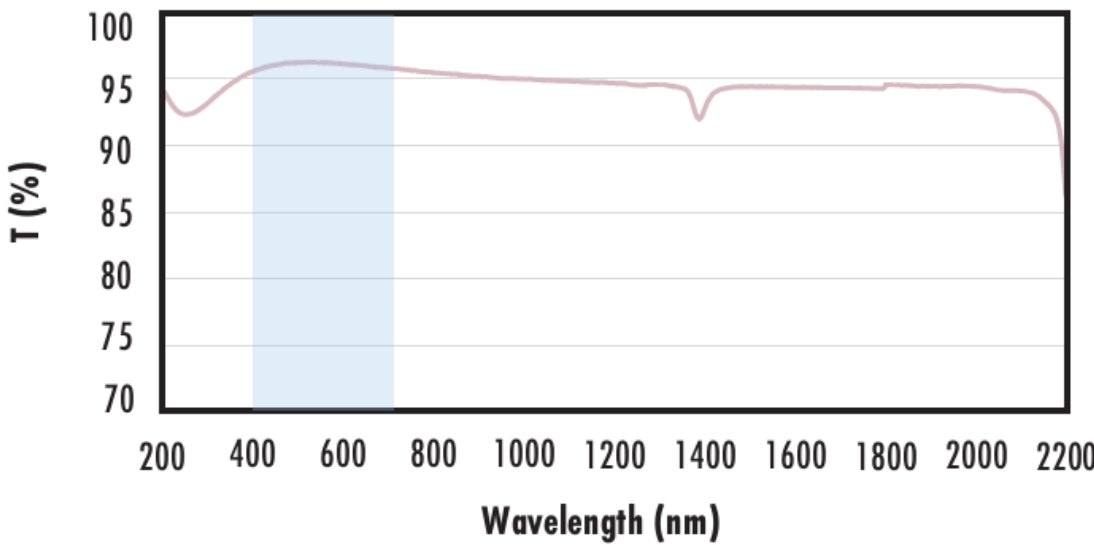
### Uncoated Fused Silica Typical Transmission



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:

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

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

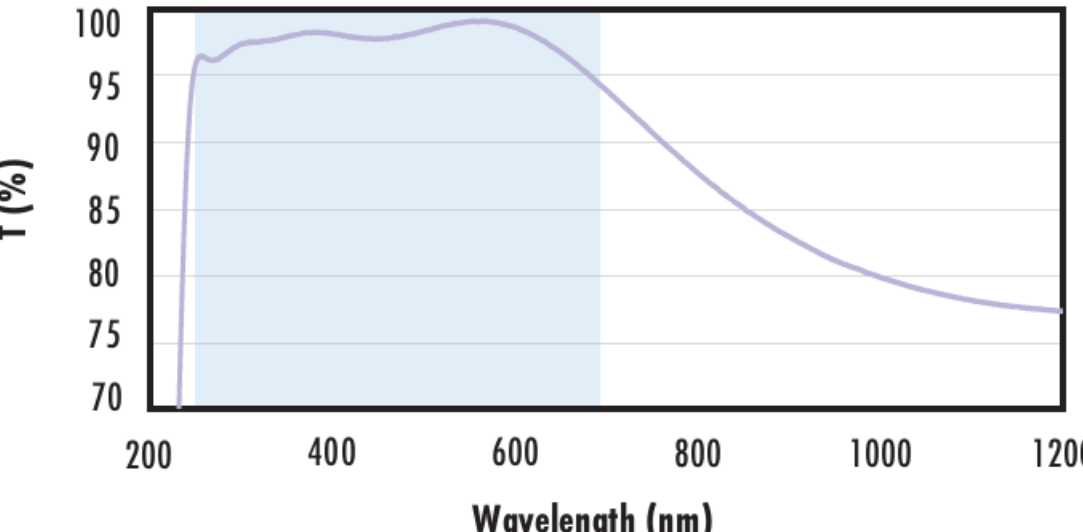
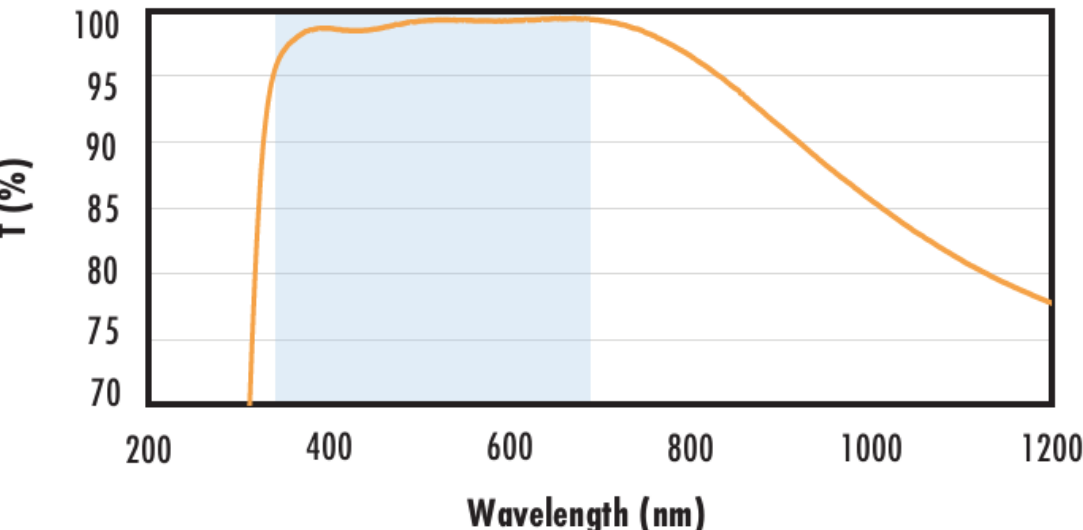
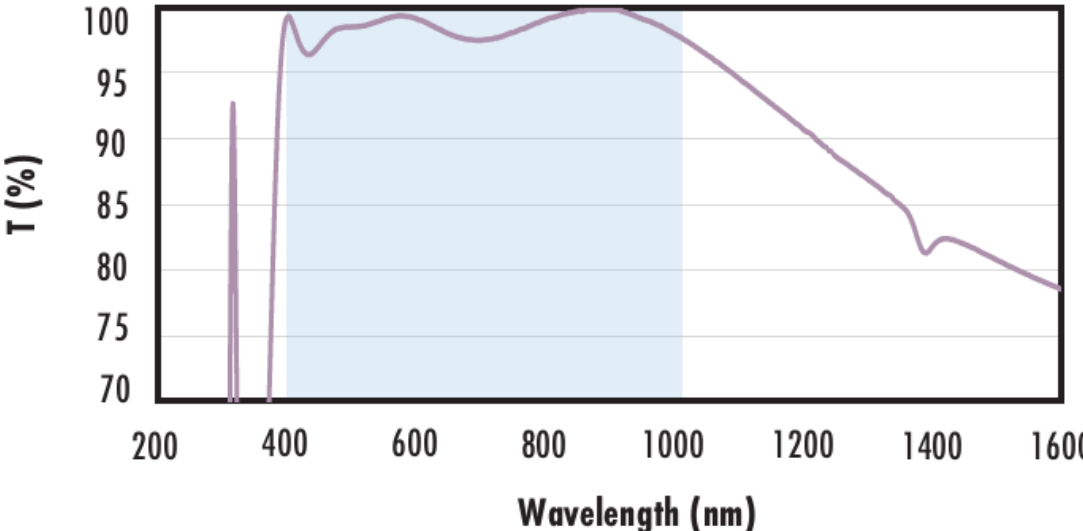
[Click Here to Download Data](#)

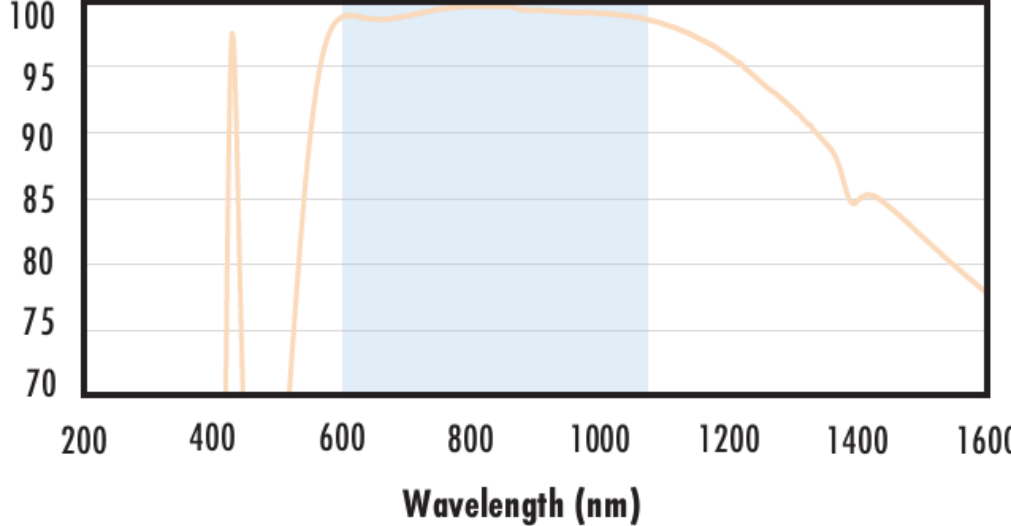
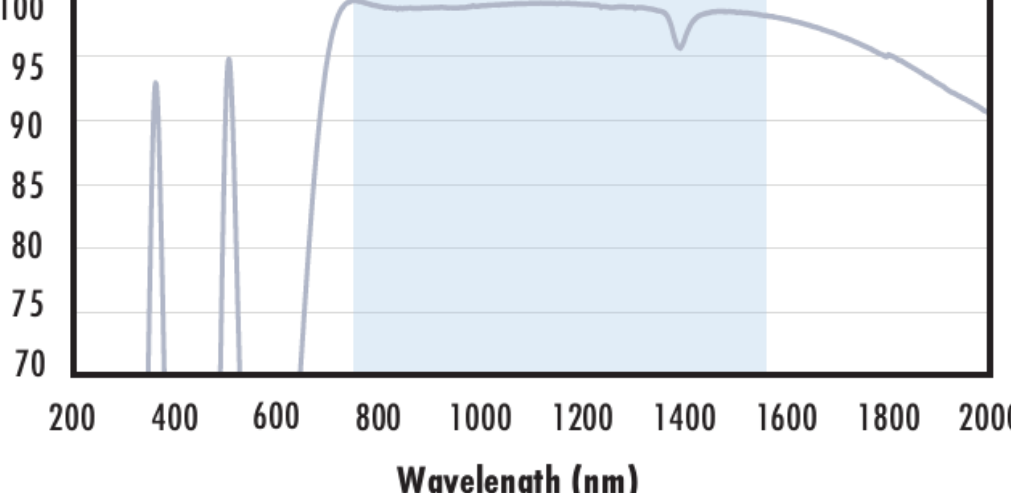
### Fused Silica with UV-AR Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

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

|                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | <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><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></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><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></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><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></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><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p>Typical transmission of a 3mm thick fused silica window with VIS 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>                                                                                                                                                                      |

|                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                   | <a href="#">Click Here to Download Data</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p data-bbox="548 338 1108 448"><b>Fused Silica with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>    | <p data-bbox="1339 498 1839 546">Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1339 560 1850 608">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1472 623 1713 697"><math>R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}</math><br/><math>R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}</math><br/><math>R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}</math></div> <p data-bbox="1339 709 1839 756">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 771 1713 792"><a href="#">Click Here to Download Data</a></p>                     |
| <p data-bbox="594 1018 1066 1127"><b>Fused Silica with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 1196 1860 1243">Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1329 1258 1850 1305">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1472 1320 1713 1347"><math>R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}</math></div> <p data-bbox="1329 1362 1839 1409">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 1424 1713 1445"><a href="#">Click Here to Download Data</a></p>                                                                                                                                       |
| <p data-bbox="581 1700 1075 1810"><b>Fused Silica with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1329 1840 1860 1887">Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1329 1902 1850 1949">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1472 1964 1713 2039"><math>R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}</math><br/><math>R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}</math><br/><math>R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}</math></div> <p data-bbox="1329 2074 1839 2122">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 2136 1713 2157"><a href="#">Click Here to Download Data</a></p> |