

[See all 216 Products in Family](#)

TECHSPEC<sup>®</sup> 20mm Dia., 3mm Thick, Uncoated,  $\lambda/4$  Fused Silica Window



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

Stock **#70-523** [CONTACT US](#)

-

1

+

€121<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | €121,00 each                  |
| Qty 6-25       | €96,00 each                   |
| Qty 26-49      | €90,50 each                   |
| Need More?     | <a href="#">Request Quote</a> |

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

Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

18.00

Clear Aperture CA (mm):

Diameter (mm):

|                      |                          |
|----------------------|--------------------------|
| 20.00 +0.00/-0.10    |                          |
| 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

|              |                                        |
|--------------|----------------------------------------|
| Uncoated     | Coating:                               |
| Fused Silica | 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> ):         |
| 200 - 2200   | Wavelength Range (nm):                 |

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <div><div>Uncoated Fused Silica<br/>Typical Transmission</div><div>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</div><div><a href="#">Click Here to Download Data</a></div></div>                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
| <div><div>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</div><div>Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><math>R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}</math></div><div>Data outside this range is not guaranteed and is for reference only.</div><div><a href="#">Click Here to Download Data</a></div></div>                                                                                       |  |  |
| <div><div>Fused Silica with UV-AR Coating<br/>Typical Transmission</div><div>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><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></div><div>Data outside this range is not guaranteed and is for reference only.</div><div><a href="#">Click Here to Download Data</a></div></div> |  |  |

|                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p data-bbox="573 296 1083 400"><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1329 460 1854 510">Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p data-bbox="1329 525 1854 572">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 587 1707 638"><math>R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}</math><math>R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}</math></div> <p data-bbox="1329 670 1854 718">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 733 1707 753"><a href="#">Click Here to Download Data</a></p>                                                                        |
| <p data-bbox="567 979 1089 1083"><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 1163 1854 1210">Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1329 1225 1854 1273">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1288 1707 1311"><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></div> <p data-bbox="1329 1326 1854 1374">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 1389 1707 1409"><a href="#">Click Here to Download Data</a></p>                                                                                                                          |
| <p data-bbox="573 1656 1083 1760"><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1329 1801 1854 1849">Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 1863 1854 1911">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1465 1926 1717 1997"><math>R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}</math></div> <p data-bbox="1329 2033 1854 2080">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2095 1707 2116"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="567 2329 1089 2433"><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 2507 1854 2555">Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 2570 1854 2617">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 2632 1707 2656"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1329 2668 1854 2715">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2730 1707 2751"><a href="#">Click Here to Download Data</a></p>                                                                                                                           |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="258 83 1276 795"><div data-bbox="695 83 919 127">Wavelength (nm)</div><div data-bbox="548 172 1108 276"><b>Fused Silica with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></div><div data-bbox="258 299 1276 795"><p>The graph shows the typical transmission of a 3mm thick fused silica window with a YAG-BBAR coating. The y-axis represents Transmittance (T) in percent, ranging from 70 to 100. The x-axis represents Wavelength in nanometers (nm), ranging from 200 to 1600. The transmission curve is red, showing high transmittance across most of the visible and near-infrared spectrum. A blue shaded region highlights the coating design wavelength range from 500 nm to 1100 nm, where transmittance is consistently above 95%.</p></div></div> | <div data-bbox="1327 320 1850 626"><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\% @ 532nm</math><br/><math>R_{abs} \leq 0.25\% @ 1064nm</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100nm</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></div>             |
| <div data-bbox="258 831 1276 1472"><div data-bbox="594 845 1066 949"><b>Fused Silica with NIR I Coating</b><br/><b>Typical Transmission</b></div><div data-bbox="258 973 1276 1472"><p>The graph shows the typical transmission of a 3mm thick fused silica window with an NIR I coating. The y-axis represents Transmittance (T) in percent, ranging from 70 to 100. The x-axis represents Wavelength in nanometers (nm), ranging from 200 to 1600. The transmission curve is orange, showing high transmittance across most of the visible and near-infrared spectrum. A blue shaded region highlights the coating design wavelength range from 600 nm to 1050 nm, where transmittance is consistently above 95%.</p></div></div>                                                     | <div data-bbox="1327 1023 1850 1279"><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 - 1050nm</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></div>                                                                                                       |
| <div data-bbox="258 1516 1276 2139"><div data-bbox="581 1531 1075 1635"><b>Fused Silica with NIR II Coating</b><br/><b>Typical Transmission</b></div><div data-bbox="258 1659 1276 2139"><p>The graph shows the typical transmission of a 3mm thick fused silica window with an NIR II coating. The y-axis represents Transmittance (T) in percent, ranging from 70 to 100. The x-axis represents Wavelength in nanometers (nm), ranging from 200 to 2000. The transmission curve is blue, showing high transmittance across most of the visible and near-infrared spectrum. A blue shaded region highlights the coating design wavelength range from 750 nm to 1550 nm, where transmittance is consistently above 95%.</p></div></div>                                                 | <div data-bbox="1327 1665 1850 1988"><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 - 800nm</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550nm</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></div> |