

TECHSPEC<sup>®</sup> 50mm Dia., 4mm Thick, VIS 0° Coated,  $\lambda$ /4 Fused Silica Window



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

Stock **#18-331** **8 In Stock**

-

1

+

S\$330<sup>40</sup>

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| Qty 1-5        | <b>S\$330.40</b> each         |
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82.00

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General

Protective Window

Type:

Physical & Mechanical Properties

45.00

Clear Aperture CA (mm):

|                      |                          |
|----------------------|--------------------------|
| 50.00 +0.00/-0.10    | Diameter (mm):           |
| 4.00 ±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

|                                             |                                        |
|---------------------------------------------|----------------------------------------|
| VIS 0° (425-675nm)                          | Coating:                               |
| <a href="#">Fused Silica</a> (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>avg</sub> ≤0.4% @ 425 - 675nm        | Coating Specification:                 |
| 425 - 675                                   | Wavelength Range (nm):                 |
| 5 J/cm² @ 532nm, 10ns                       | Damage Threshold, Reference:           |

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): |
| 7980 0G                                                           | Fused Silica Grade:                                          |

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <div>Uncoated Fused Silica<br/>Typical Transmission</div> <p>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                   |  |  |
| <div>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</div> <p>Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) 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 1.75\%</math> @ 400 - 700nm (N-BK7)</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>Fused Silica with UV-AR Coating<br/>Typical Transmission</div> <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\%</math> @ 250 - 425nm<br/><math>R_{avg} \leq 0.75\%</math> @ 250 - 425nm<br/><math>R_{avg} \leq 0.5\%</math> @ 370 - 420nm</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 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 1213">Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1329 1228 1854 1276">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1291 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 1852">Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 1866 1854 1914">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1465 1929 1717 2000"><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 2558">Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 2573 1854 2620">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 2635 1707 2656"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1329 2671 1854 2718">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2733 1707 2754"><a href="#">Click Here to Download Data</a></p>                                                                                                                           |



