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TECHSPEC<sup>®</sup> 50mm Dia., 2mm Thick, YAG-BBAR Coated,  $\lambda$ /10 Fused Silica Window



Stock **#13-360** [CONTACT US](#)

-

1

+

A\$516<sup>.80</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | A\$516.80 each                |
| Qty 6-25       | A\$411.20 each                |
| Qty 26-49      | A\$385.60 each                |
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Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

40.00

Clear Aperture CA (mm):

50.00 +0.00/-0.20

Diameter (mm):

|                      |                             |
|----------------------|-----------------------------|
| 2.00 ±0.10           | Thickness (mm):             |
| +0.00/-0.20          | Dimensional Tolerance (mm): |
| Protective as needed | Bevel:                      |
| 80                   | Clear Aperture (%):         |
| Fine Ground          | Edges:                      |
| <5                   | Parallelism (arcsec):       |
| 0.16                 | Poisson's Ratio:            |
| 73                   | Young's Modulus (GPa):      |

|        |                          |
|--------|--------------------------|
| 522.00 | Knoop Hardness (kg/mm²): |
|--------|--------------------------|

Optical Properties

|                                                                                                              |                                        |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------|
| YAG-BBAR (500-1100nm)                                                                                        | Coating:                               |
| Fused Silica (Corning 7980)                                                                                  | Substrate: <div></div>                 |
| 1.458                                                                                                        | Index of Refraction (n <sub>d</sub> ): |
| 20-10                                                                                                        | Surface Quality:                       |
| λ/10                                                                                                         | Transmitted Wavefront, P-V:            |
| 67.8                                                                                                         | Abbe Number (v <sub>d</sub> ):         |
| R <sub>abs</sub> <0.25% @ 532nm<br>R <sub>abs</sub> <0.25% @ 1064nm<br>R <sub>avg</sub> <1.0% @ 500 - 1100nm | Coating Specification:                 |
| 500 - 1100                                                                                                   | Wavelength Range (nm):                 |

|                       |                                          |
|-----------------------|------------------------------------------|
| 5 J/cm² @ 532nm, 10ns | Damage Threshold, By Design: <div></div> |
|-----------------------|------------------------------------------|

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

|           |                             |
|-----------|-----------------------------|
| Compliant | RoHS 2015:                  |
| View      | Certificate of Conformance: |
| Compliant | Reach 235:                  |

## 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](#).

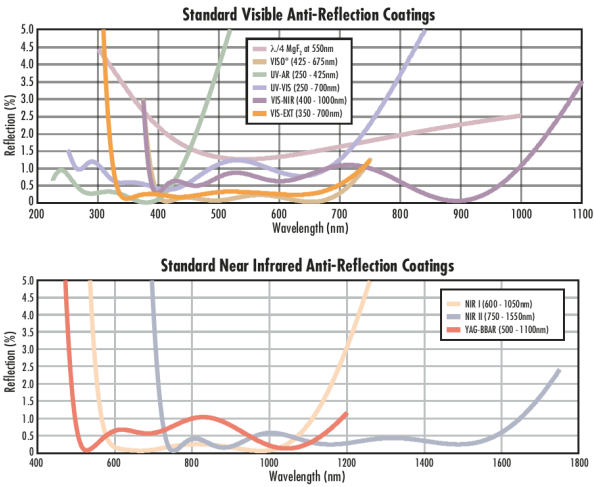
## Product Details

- UV, Visible, and NIR Anti-Reflection Coated Versions Available
- λ/10 Transmitted Wavefront Distortion

- Circular and Square Sizes from 2mm to 150mm
- [1λ](#) or [λ/4](#) UV Fused Silica Windows Also Available

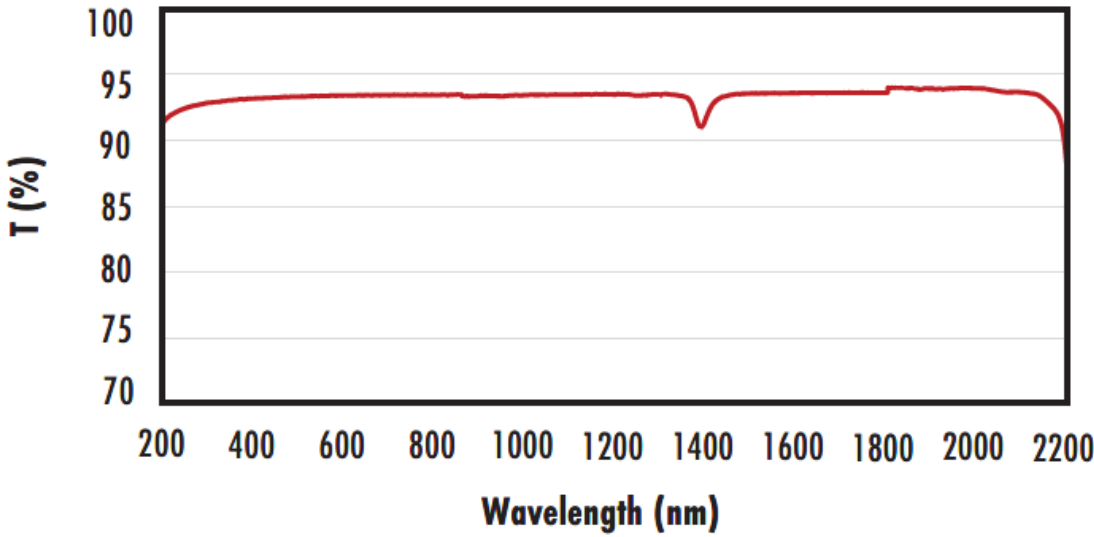
TECHSPEC® *N*/10 UV Fused Silica Windows feature laser-grade surface quality and parallelism. In addition, these windows will limit the transmitted wavefront distortion to *N*/10. The superior transmission characteristics, excellent thermal properties, and high tolerance manufacturing specifications make these windows an excellent choice for more demanding applications. TECHSPEC *N*/10 UV Fused Silica Windows are available for purchase in circular and square sizes ranging from 2mm to 150mm... These windows are offered uncoated or with anti-reflection coatings optimized for the UV or visible spectrum.

Technical Information



FUSED SILICA

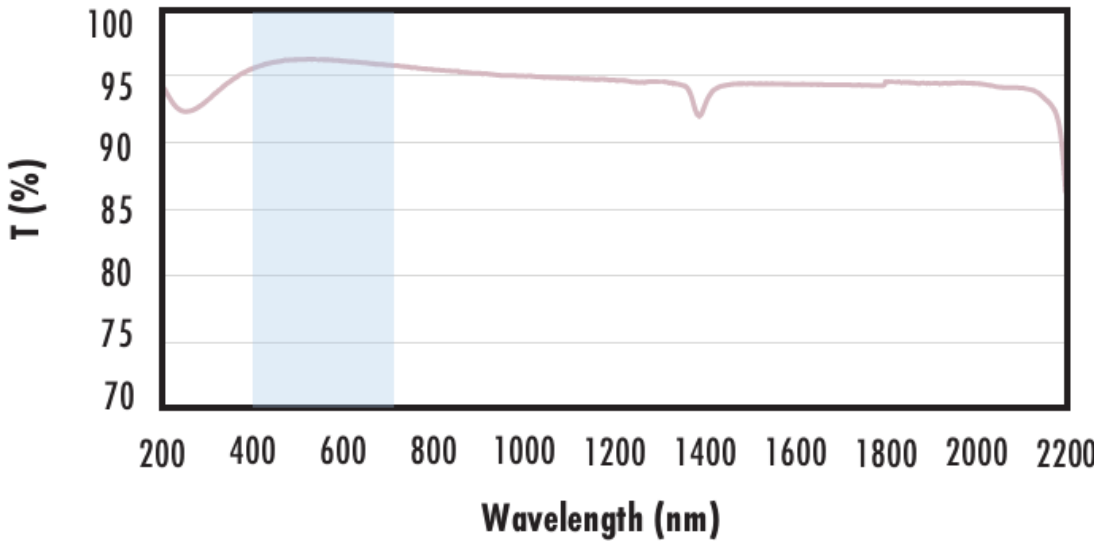
Uncoated Fused Silica  
Typical Transmission



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.

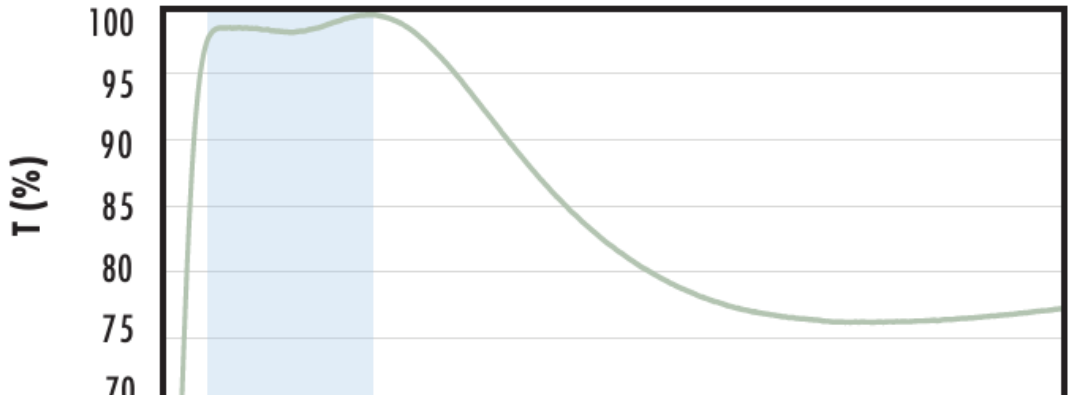
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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Fused Silica with UV-AR Coating  
Typical Transmission



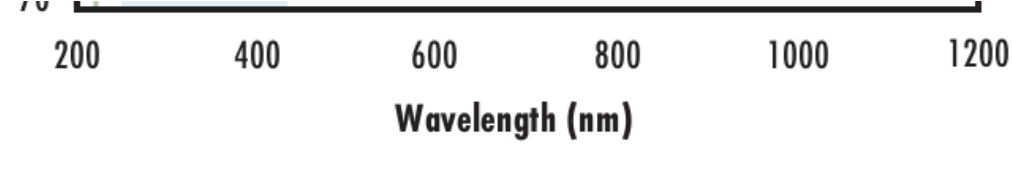
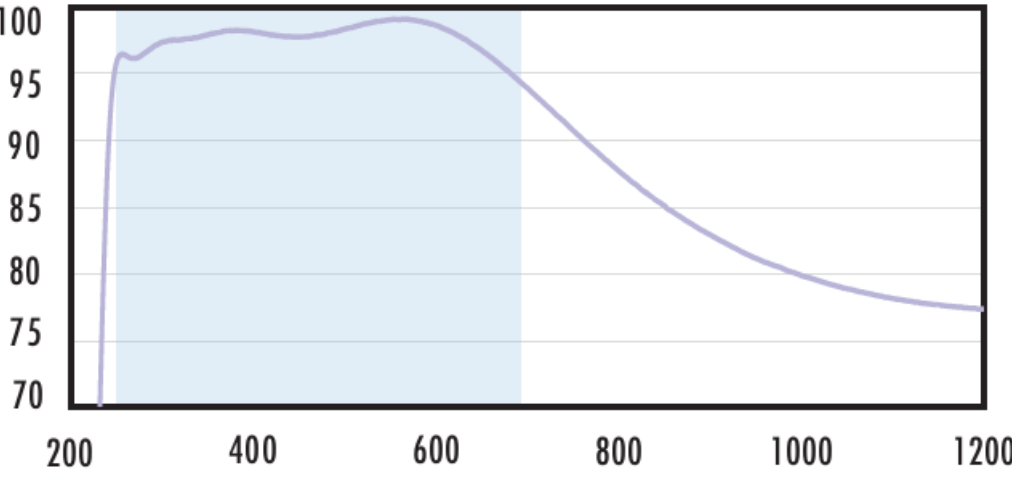
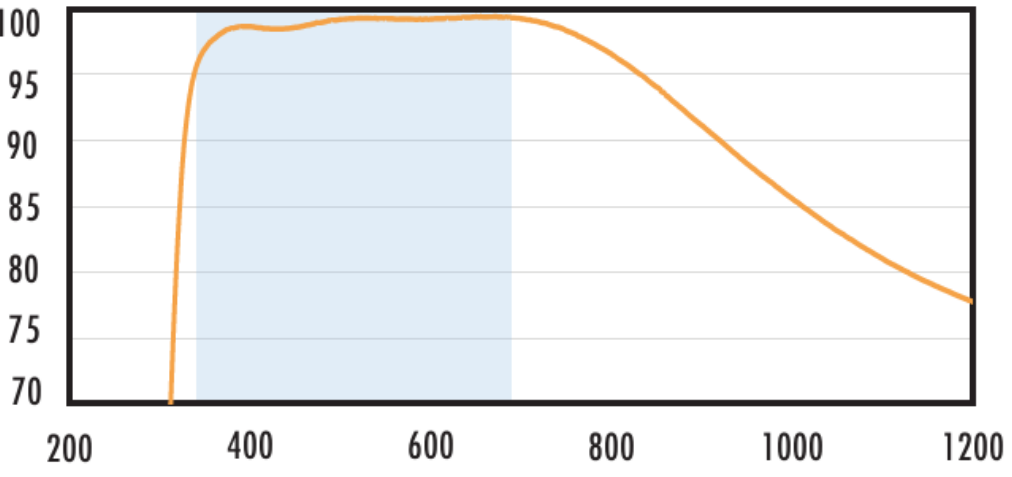
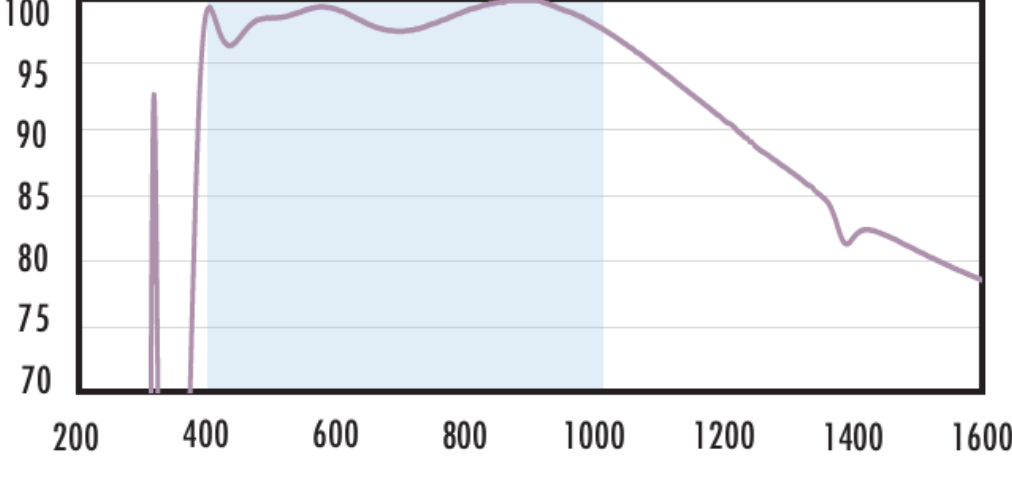
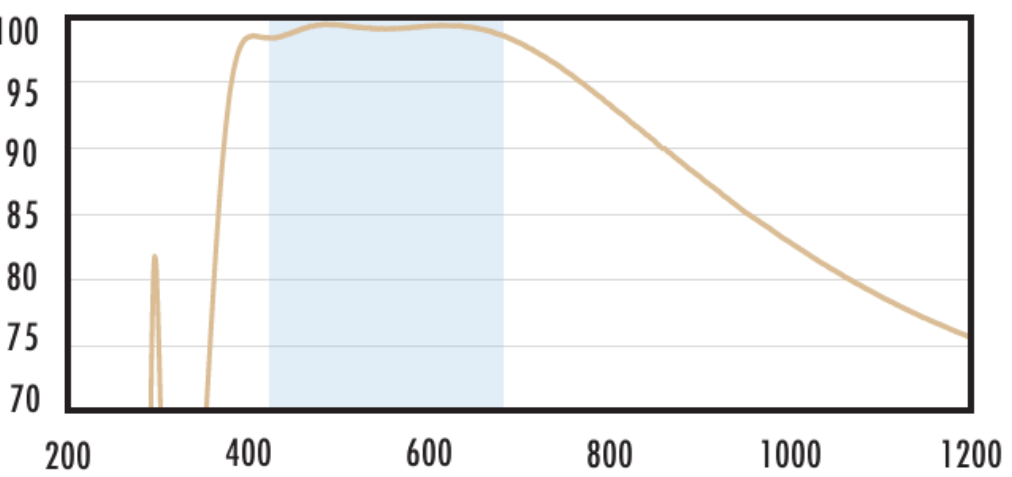
Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

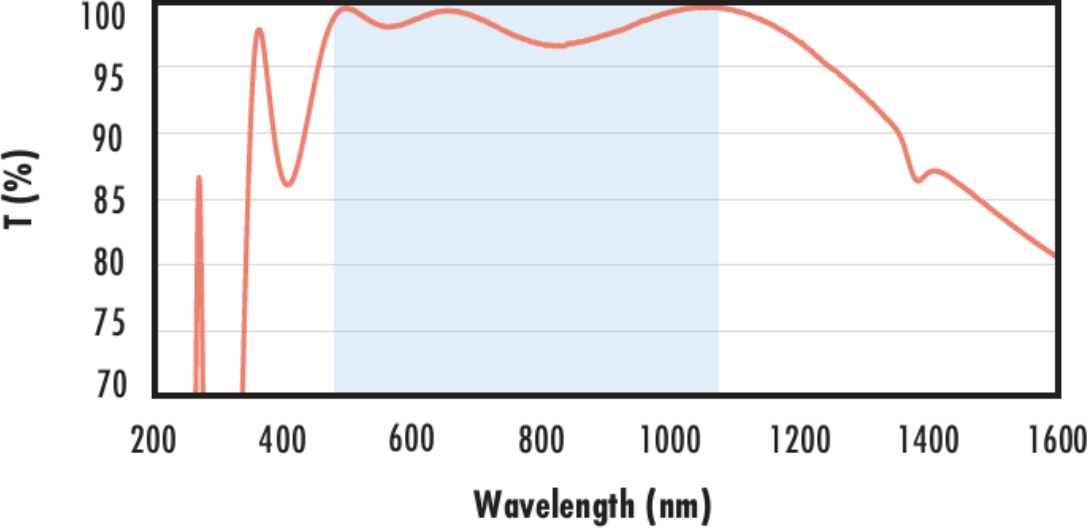
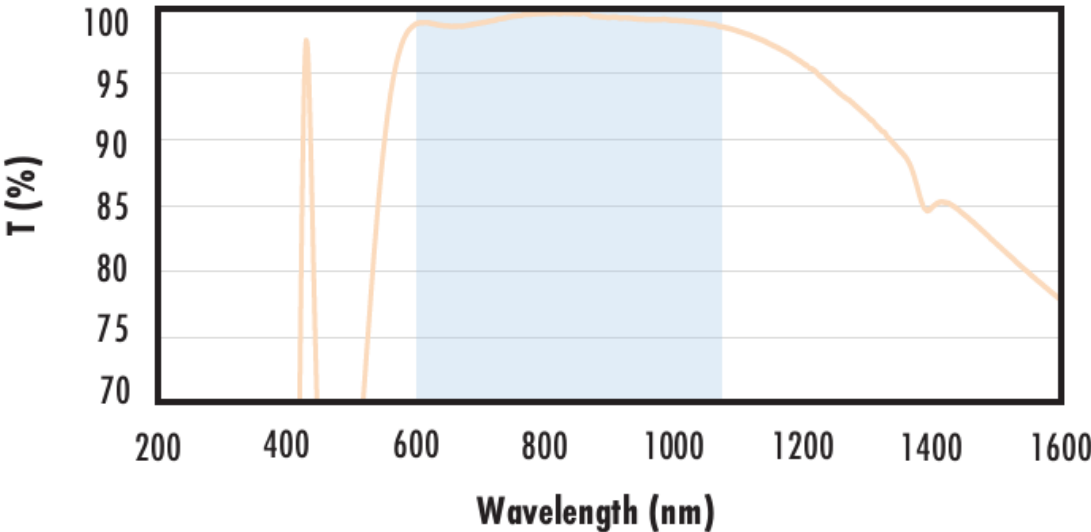
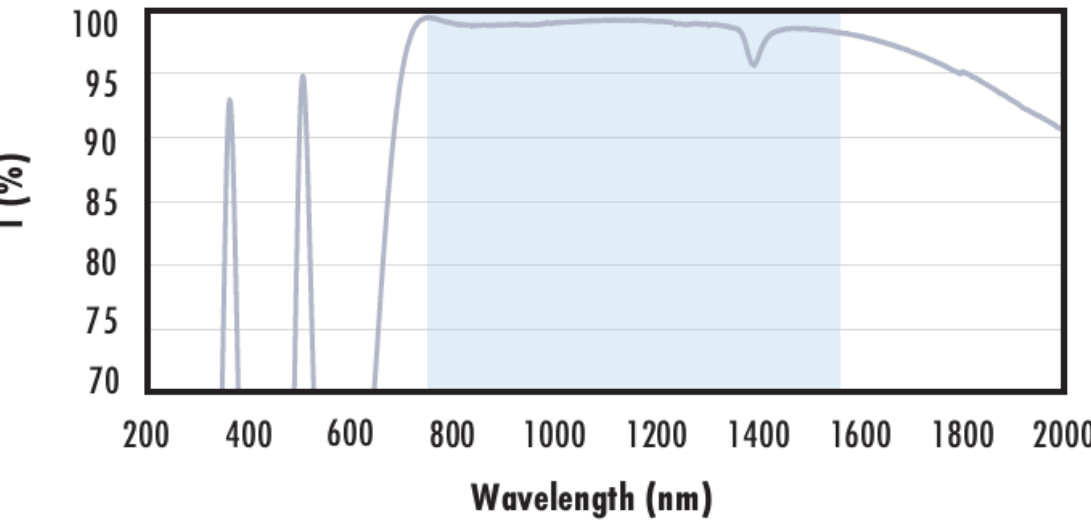
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 1.0\% \text{ @ } 250 - 425\text{nm}$   
 $R_{avg} \leq 0.75\% \text{ @ } 250 - 425\text{nm}$   
 $R_{avg} \leq 0.5\% \text{ @ } 370 - 420\text{nm}$

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

[Click Here to Download Data](#)

|                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p data-bbox="573 261 1083 365"><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1329 418 1854 468">Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p data-bbox="1329 480 1854 531">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 543 1707 593"><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 629 1854 679">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 691 1707 712"><a href="#">Click Here to Download Data</a></p>                                                                        |
| <p data-bbox="573 943 1083 1047"><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 1124 1854 1175">Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1329 1187 1854 1237">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1249 1707 1270"><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></div> <p data-bbox="1329 1282 1854 1332">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 1344 1707 1365"><a href="#">Click Here to Download Data</a></p>                                                                                                                          |
| <p data-bbox="573 1626 1083 1730"><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1329 1762 1854 1813">Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 1825 1854 1875">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1887 1707 1958"><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 1994 1854 2044">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2056 1707 2077"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="573 2288 1083 2392"><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 2469 1854 2519">Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 2531 1854 2582">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 2594 1707 2614"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1329 2626 1854 2677">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2689 1707 2709"><a href="#">Click Here to Download Data</a></p>                                                                                                                           |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Wavelength (nm)</div><div><div><div>Fused Silica with YAG-BBAR Coating</div><div>Typical Transmission</div></div><div><div><div><div>T (%)</div><div>100</div><div>95</div><div>90</div><div>85</div><div>80</div><div>75</div><div>70</div></div><div><div><div><div>200</div><div>400</div><div>600</div><div>800</div><div>1000</div><div>1200</div><div>1400</div><div>1600</div></div><div>Wavelength (nm)</div></div></div><div></div></div></div></div></div>                               | <div><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><div><div><div><math>R_{abs} \leq 0.25\%</math> @ 532nm</div><div><math>R_{abs} \leq 0.25\%</math> @ 1064nm</div><div><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</div></div></div><p>Data outside this range is not guaranteed and is for reference only.</p><div><a href="#">Click Here to Download Data</a></div></div>           |
| <div><div>Wavelength (nm)</div><div><div><div>Fused Silica with NIR I Coating</div><div>Typical Transmission</div></div><div><div><div><div>T (%)</div><div>100</div><div>95</div><div>90</div><div>85</div><div>80</div><div>75</div><div>70</div></div><div><div><div><div>200</div><div>400</div><div>600</div><div>800</div><div>1000</div><div>1200</div><div>1400</div><div>1600</div></div><div>Wavelength (nm)</div></div></div><div></div></div></div></div></div>                                 | <div><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><div><div><math>R_{avg} \leq 0.5\%</math> @ 600 - 1050nm</div></div><p>Data outside this range is not guaranteed and is for reference only.</p><div><a href="#">Click Here to Download Data</a></div></div>                                                                                                                              |
| <div><div>Wavelength (nm)</div><div><div><div>Fused Silica with NIR II Coating</div><div>Typical Transmission</div></div><div><div><div><div>T (%)</div><div>100</div><div>95</div><div>90</div><div>85</div><div>80</div><div>75</div><div>70</div></div><div><div><div><div>200</div><div>400</div><div>600</div><div>800</div><div>1000</div><div>1200</div><div>1400</div><div>1600</div><div>1800</div><div>2000</div></div><div>Wavelength (nm)</div></div></div><div></div></div></div></div></div> | <div><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><div><div><div><math>R_{abs} \leq 1.5\%</math> @ 750 - 800nm</div><div><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm</div><div><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</div></div></div><p>Data outside this range is not guaranteed and is for reference only.</p><div><a href="#">Click Here to Download Data</a></div></div> |

Compatible Mounts