

TECHSPEC<sup>®</sup> 50mm Sq., 5mm Thick, VIS-NIR Coated  $\lambda$ /10 Fused Silica Window



Stock #24-318 1 In Stock

-

1

+

S\$452<sup>.20</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | S\$452.20 each                |
| Qty 6-25       | S\$359.80 each                |
| Qty 26-49      | S\$337.40 each                |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Type:Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):45.00 x45.00

Dimensions (mm):50.00 x50.00 +0.00/-0.20

|                      |                          |
|----------------------|--------------------------|
| 5.00 ±0.10           | Thickness (mm):          |
| Protective as needed | Bevel:                   |
| 90                   | 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                                                                                                 |                                                       |
| VIS-NIR (400-1000nm)                                                                                               | Coating:                                              |
| <a href="#">Fused Silica</a> Coming 7980                                                                           | Substrate: <input type="checkbox"/>                   |
| 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% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm | Coating Specification:                                |
| 400 - 1000                                                                                                         | Wavelength Range (nm):                                |
| 5 J/cm² @ 532nm, 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     |                             |
| <a href="#">Compliant</a> | RoHS 2015:                  |
| <a href="#">View</a>      | Certificate of Conformance: |
| <a href="#">Compliant</a> | 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

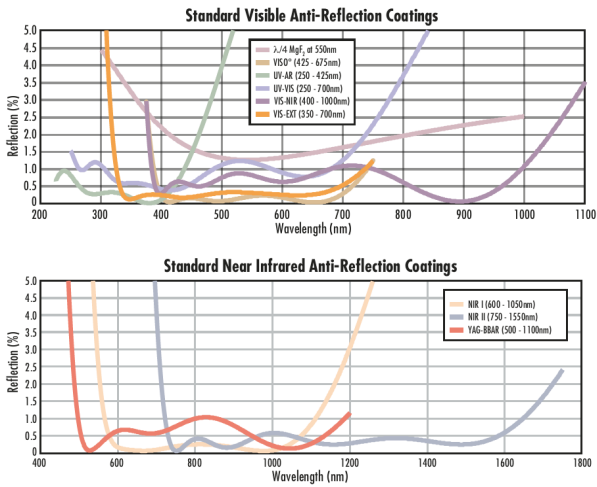
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## 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

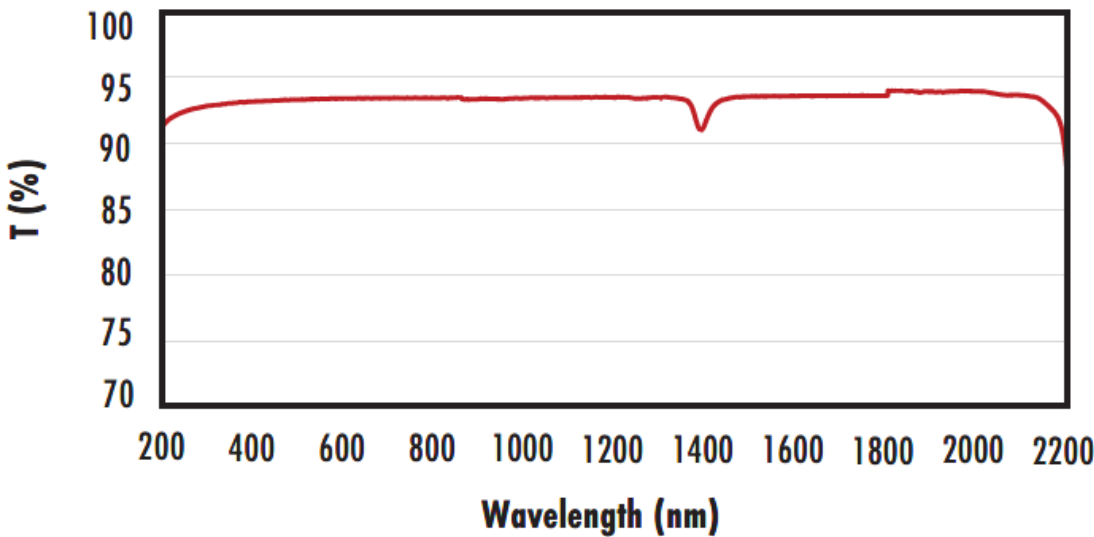
TECHSPEC® λ/10 UV Fused Silica Windows feature laser-grade surface quality and parallelism. In addition, these windows will limit the transmitted wavefront distortion to λ/10. The superior transmission characteristics, excellent thermal properties, and high tolerance manufacturing specifications make these windows an excellent choice for more demanding applications. TECHSPEC λ/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

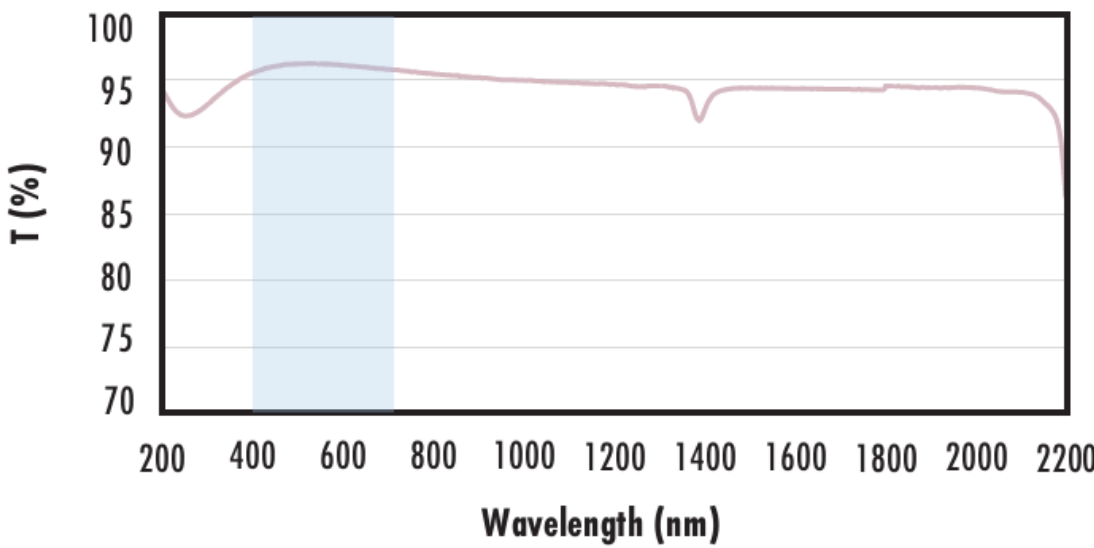
Uncoated Fused Silica  
Typical Transmission



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.

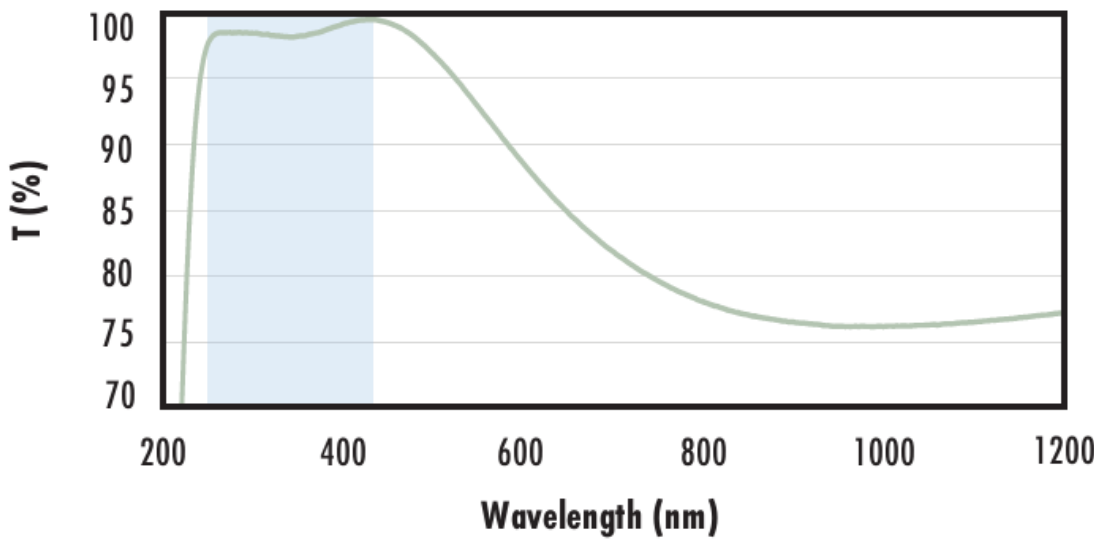
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

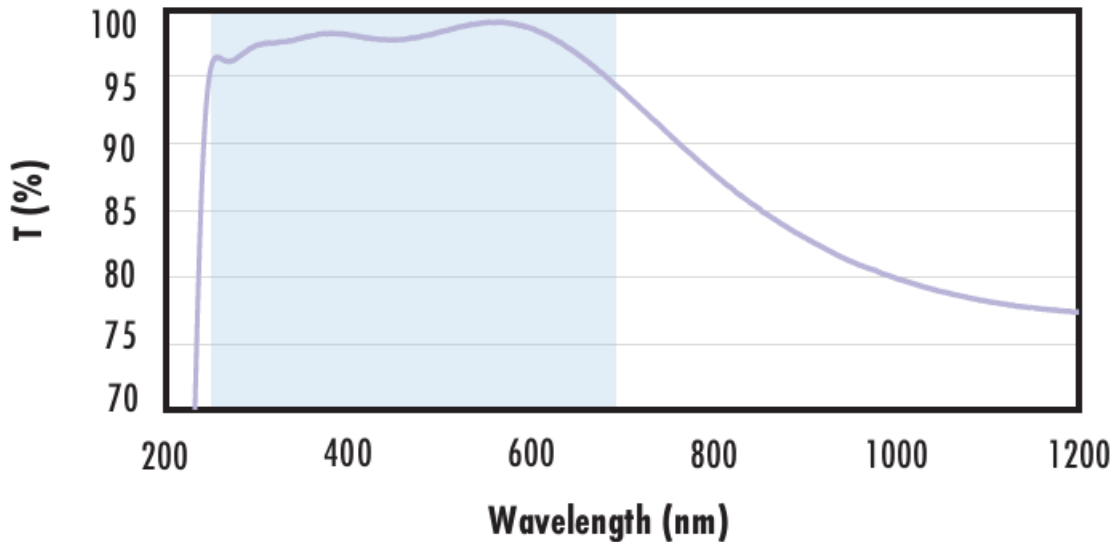
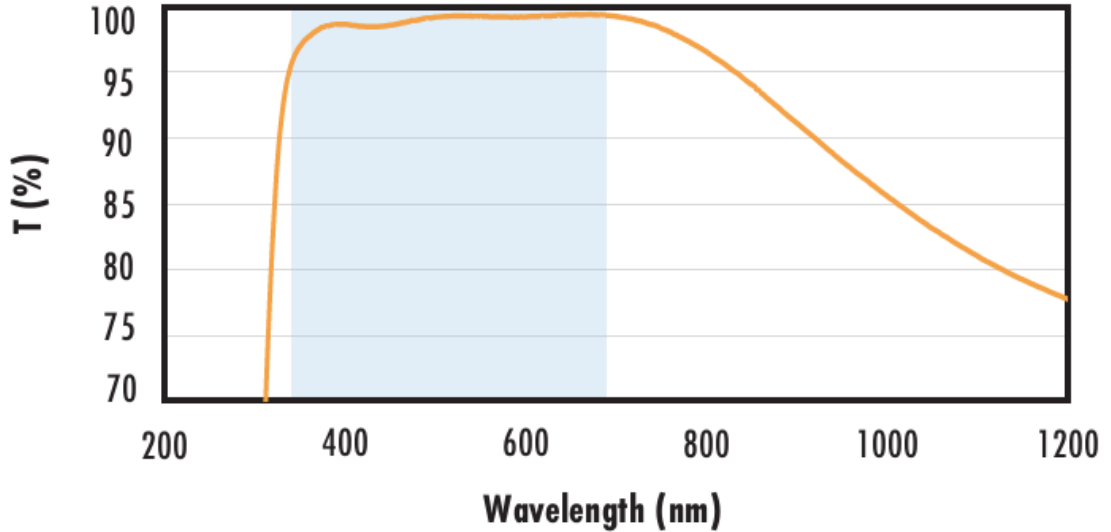
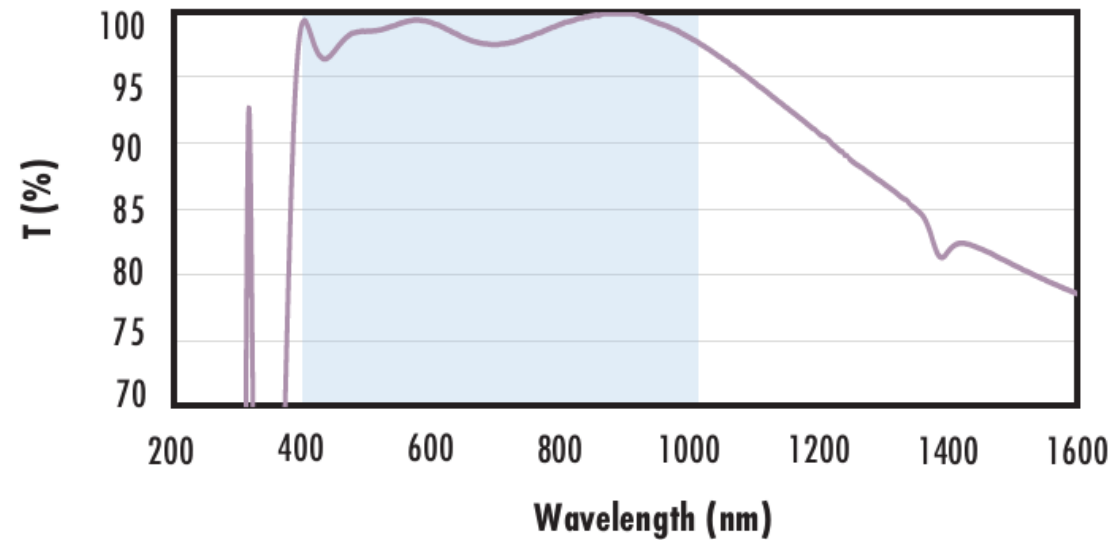
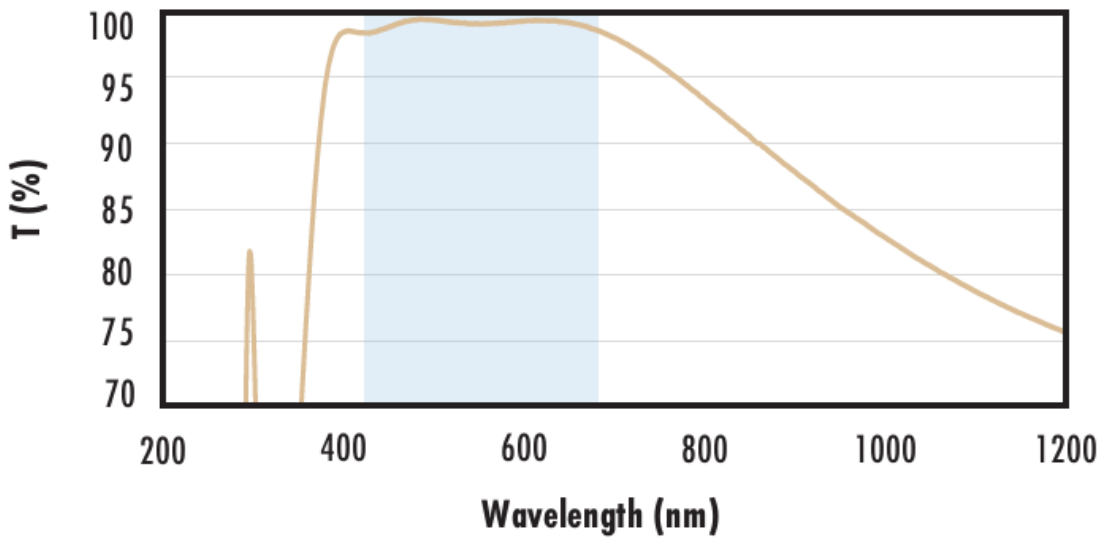
$R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$

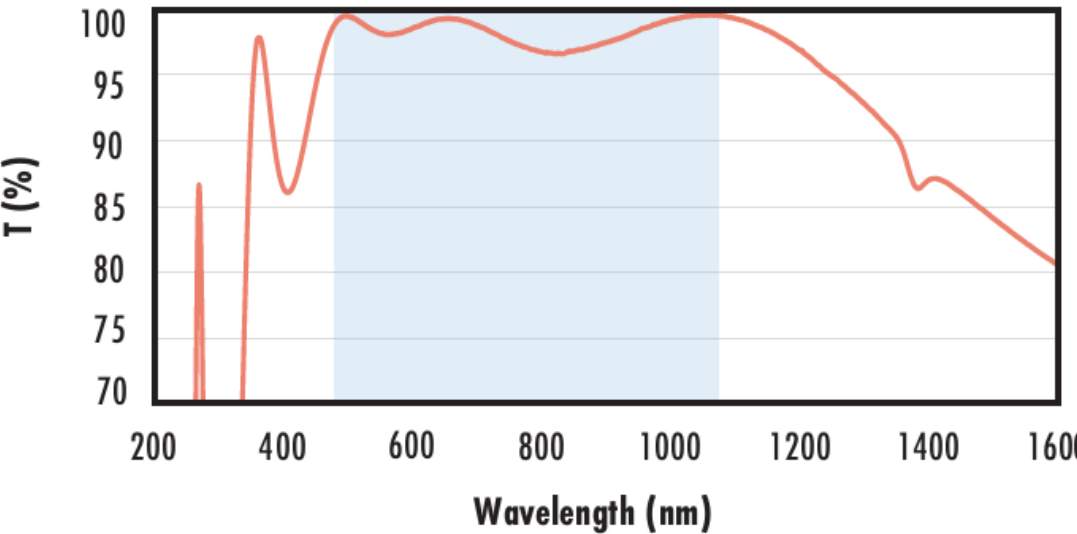
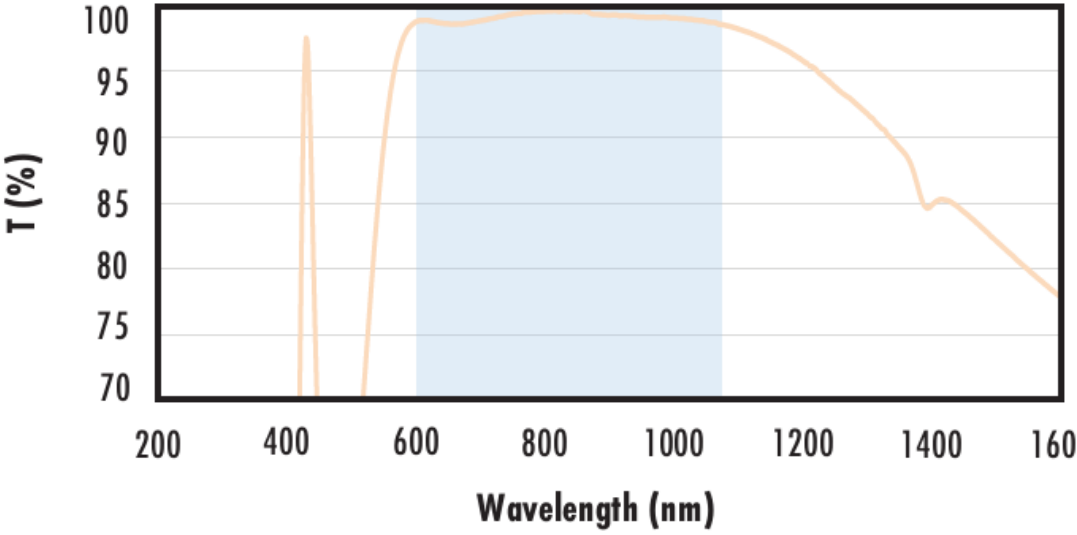
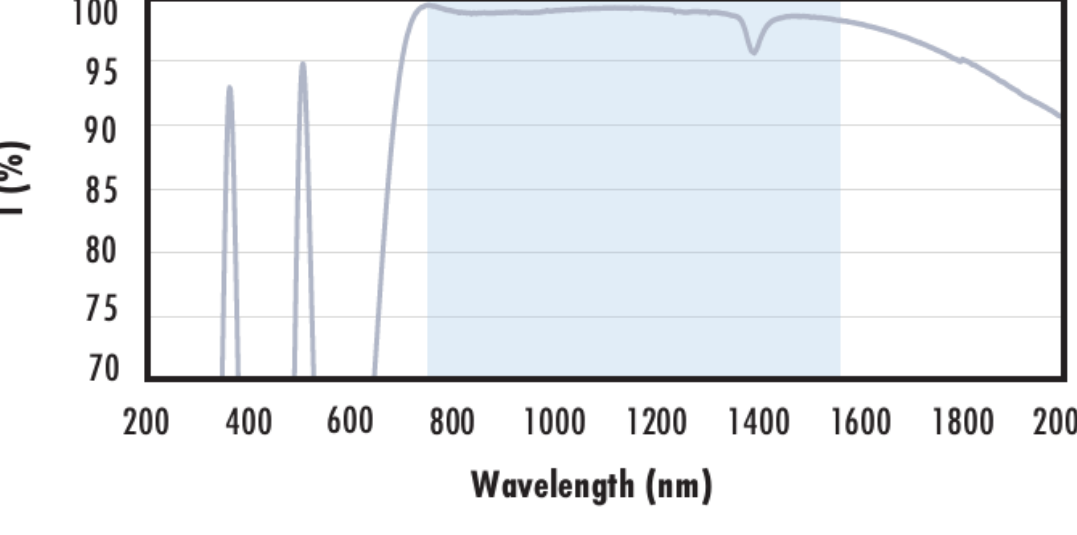
$R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$

$R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$

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

[Click Here to Download Data](#)

|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Fused Silica with UV-VIS Coating</div><div>Typical Transmission</div></div>    | <div>Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:<div><div><math>R_{abs} \leq 1.0\%</math> @ 350 - 450nm</div><div><math>R_{avg} \leq 1.5\%</math> @ 250 - 700nm</div></div></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>Fused Silica with VIS-EXT Coating</div><div>Typical Transmission</div></div>  | <div>Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) 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 0.5\%</math> @ 350 - 700nm</div></div></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>Fused Silica with VIS-NIR Coating</div><div>Typical Transmission</div></div> | <div>Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) 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 0.25\%</math> @ 880nm</div><div><math>R_{avg} \leq 1.25\%</math> @ 400 - 870nm</div><div><math>R_{avg} \leq 1.25\%</math> @ 890 - 1000nm</div></div></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>Fused Silica with VIS 0° Coating</div><div>Typical Transmission</div></div>  | <div>Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) 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 0.4\%</math> @ 425 - 675nm</div></div></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>Fused Silica with YAG-BBAR Coating</div><div>Typical Transmission</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> <p><math>R_{abs} \leq 0.25\%</math> @ 532nm<br/><math>R_{abs} \leq 0.25\%</math> @ 1064nm<br/><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</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\%</math> @ 600 - 1050nm</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\%</math> @ 750 - 800nm<br/><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm<br/><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</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> |

Coating Curves