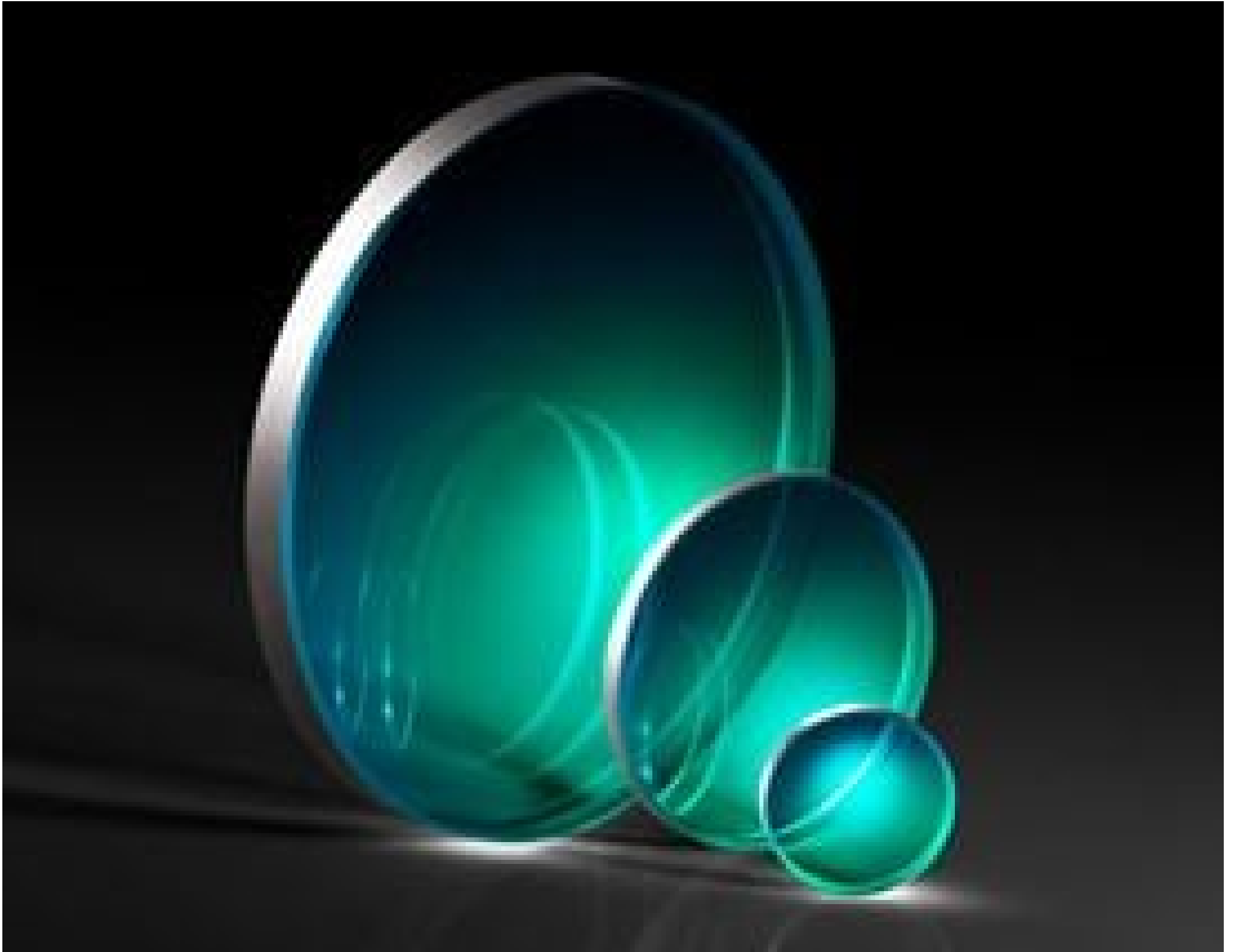


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**TECHSPEC® 50mm Dia., 4mm Thick, Uncoated,  $\lambda/4$  Fused Silica Window**



TECHSPEC®  $\lambda/4$  UV Fused Silica Windows

Stock **#14-966** **5 In Stock**

⊖ 1 ⊕ €202.<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-5	€202,00 each
Qty 6-25	€161,00 each
Qty 26-49	€151,00 each
Need More?	<a href="#">Request Quote</a>

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

78.00 #Sorting:

**General**

Protective Window Type:

**Physical & Mechanical Properties**

Clear Aperture CA (mm):

45.00	<b>Diameter (mm):</b>
50.00 +0.00/-0.10	
	<b>Thickness (mm):</b>
4.00 ±0.10	
	<b>Parallelism (arcmin):</b>
<1	
	<b>Dimensional Tolerance (mm):</b>
+0.00/-0.10	
	<b>Bevel:</b>
Protective as needed	
	<b>Clear Aperture (%):</b>
90	
	<b>Edges:</b>
Fine Ground	
	<b>Poisson's Ratio:</b>
0.16	
	<b>Young's Modulus (GPa):</b>
73	
	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b>
522.00	

## Optical Properties

	<b>Coating:</b>
Uncoated	
	<b>Substrate:</b> <input type="checkbox"/>
<a href="#">Fused Silica</a> (Corning 7980)	
	<b>Index of Refraction (n<sub>d</sub>):</b>
1.458	
	<b>Surface Quality:</b>
40-20	
	<b>Transmitted Wavefront, P-V:</b>
λ/4	
	<b>Abbe Number (v<sub>d</sub>):</b>
67.8	
	<b>Wavelength Range (nm):</b>
200 - 2200	

## Material Properties

	<b>Density (g/cm<sup>3</sup>):</b>
2.20	
	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>
0.52 (+5 to +35°C)	
0.57 (0 to +200°C)	
0.48 (-100 to +200°C)	
	<b>Fused Silica Grade:</b>
7980 0G	

## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</b>
<a href="#">Compliant</a>	<b>REACH 241:</b>

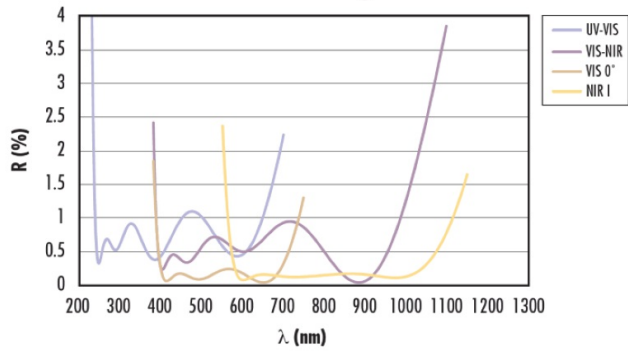
## Product Details

- 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

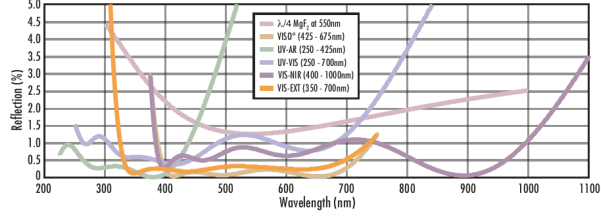
TECHSPEC® λ/4 UV Fused Silica Windows are manufactured with 40-20 surface quality and λ/4 transmitted wavefront error specifications, making them ideal for imaging applications. Featuring UV fused silica substrates, these windows provide high transmission from the ultraviolet (UV) through the visible 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

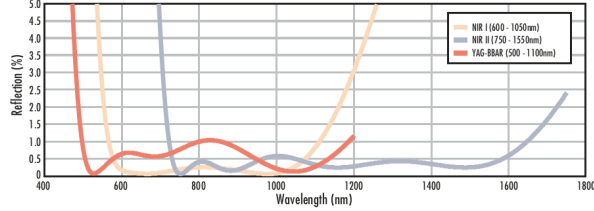
### Anti-Reflection Coating Curves



### Standard Visible Anti-Reflection Coatings

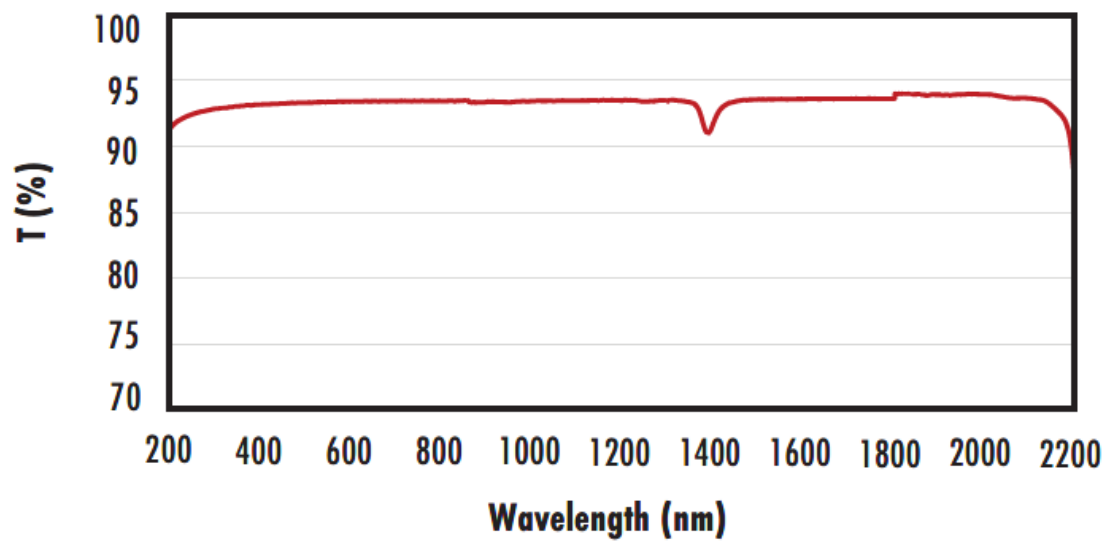


### Standard Near Infrared Anti-Reflection Coatings



## FUSED SILICA

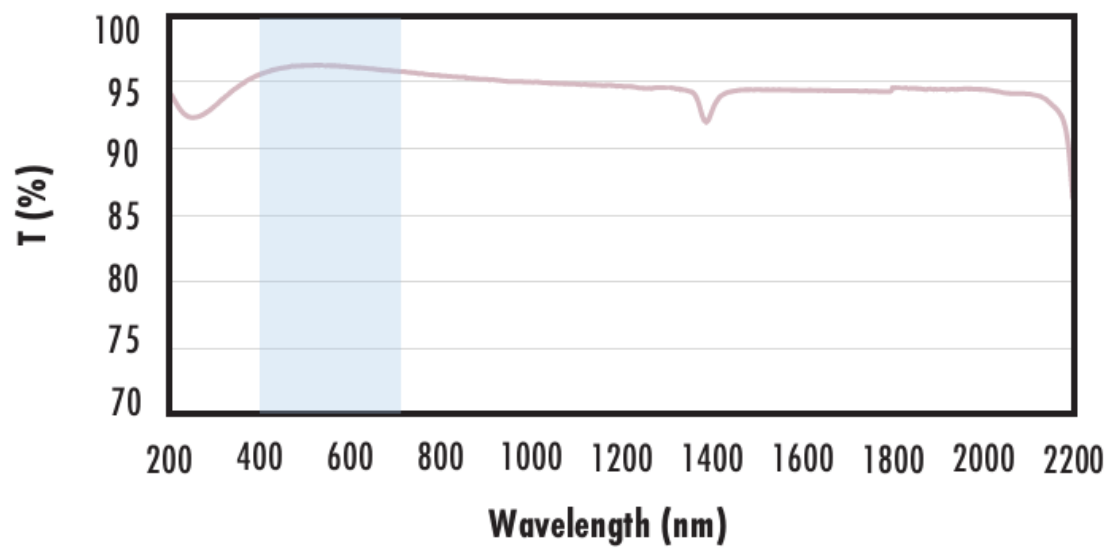
### Uncoated Fused Silica Typical Transmission



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.

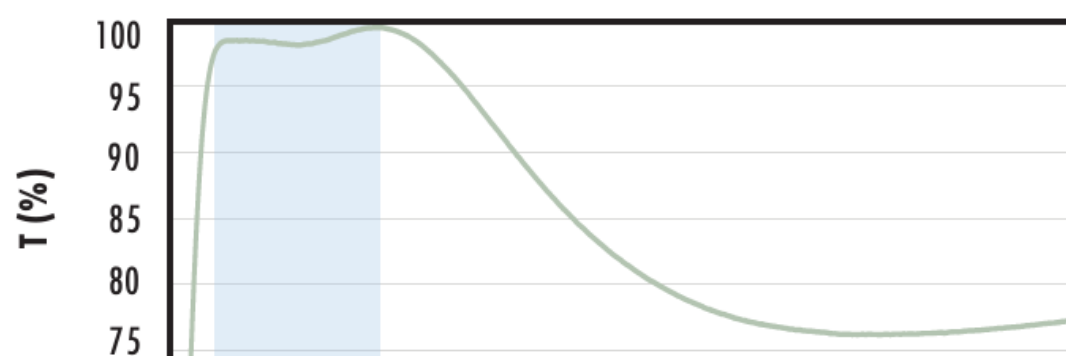
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

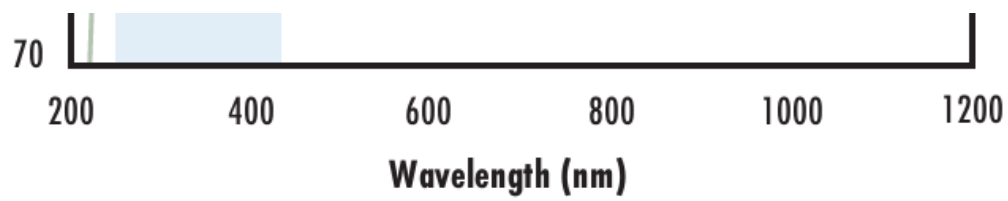
$$R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$$

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

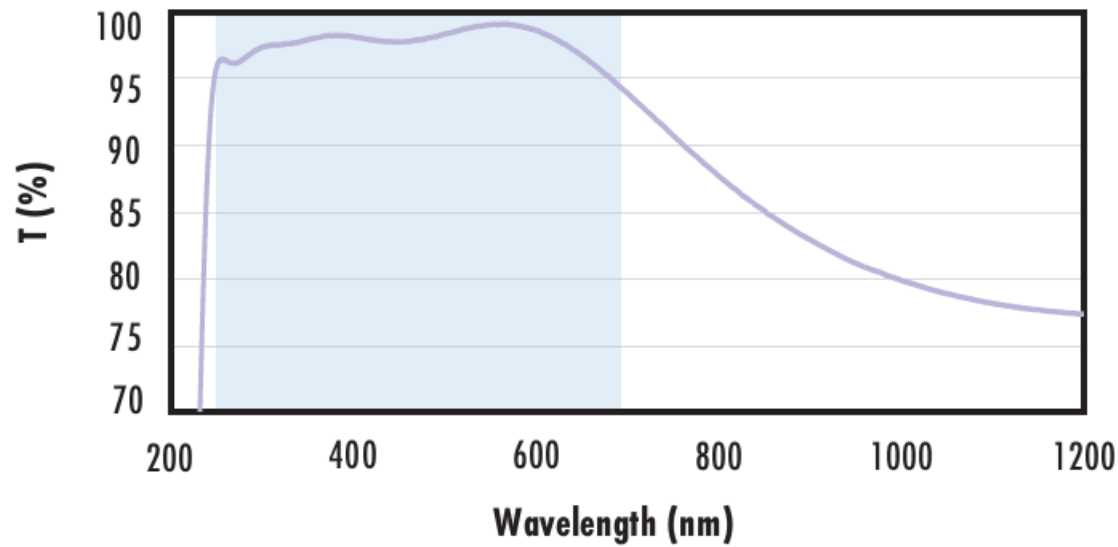
$$R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$$

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

[Click Here to Download Data](#)



**Fused Silica with UV-VIS Coating  
Typical Transmission**



Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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

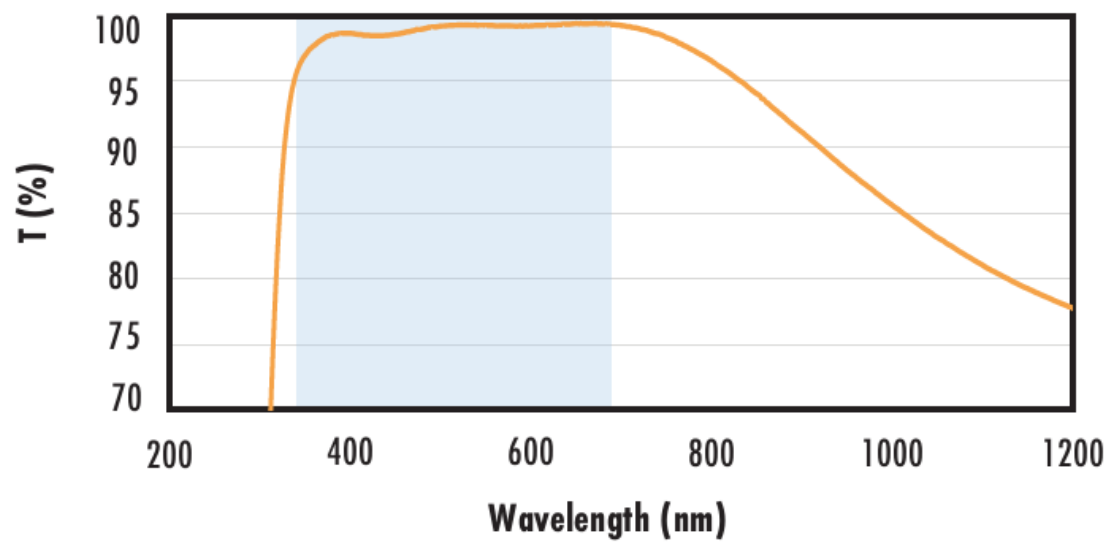
$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

$$R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}$$

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

[Click Here to Download Data](#)

**Fused Silica with VIS-EXT Coating  
Typical Transmission**



Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

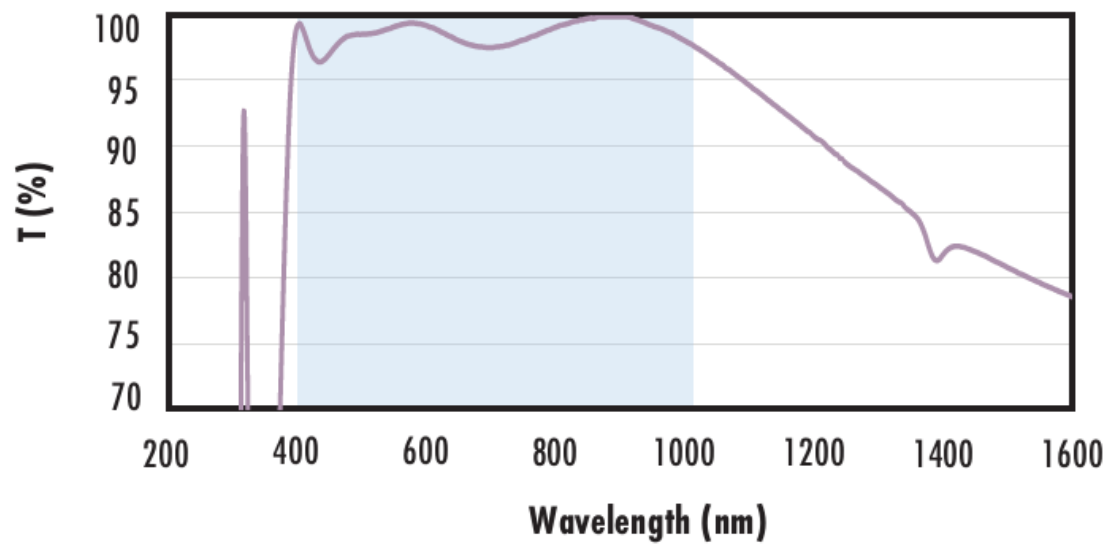
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$$

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

[Click Here to Download Data](#)

**Fused Silica with VIS-NIR Coating  
Typical Transmission**



Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

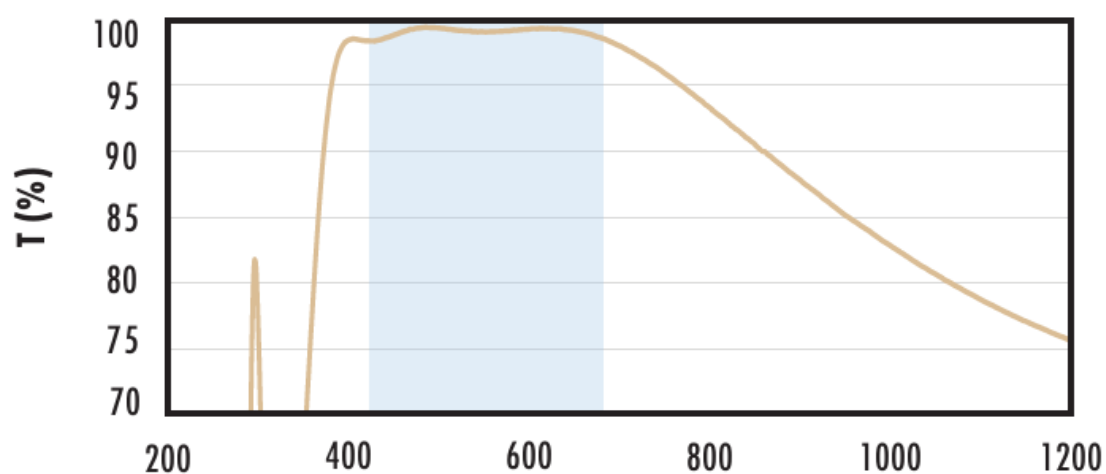
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$$

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

[Click Here to Download Data](#)

**Fused Silica with VIS 0° Coating  
Typical Transmission**



Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

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

$$R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$$

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

[Click Here to Download Data](#)

Wavelength (nm)	
<p><b>Fused Silica with YAG-BBAR Coating</b> <b>Typical Transmission</b></p>	<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 style="text-align: center;"> <math>R_{abs} \leq 0.25\% @ 532\text{nm}</math>  <math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math>  <math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math> </p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p style="text-align: center;"><a href="#">Click Here to Download Data</a></p>
<p><b>Fused Silica with NIR I Coating</b> <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 style="text-align: center;"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p style="text-align: center;"><a href="#">Click Here to Download Data</a></p>
<p><b>Fused Silica with NIR II Coating</b> <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 style="text-align: center;"> <math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math>  <math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math>  <math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math> </p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p style="text-align: center;"><a href="#">Click Here to Download Data</a></p>

## Custom

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](#).

## Compatible Mounts