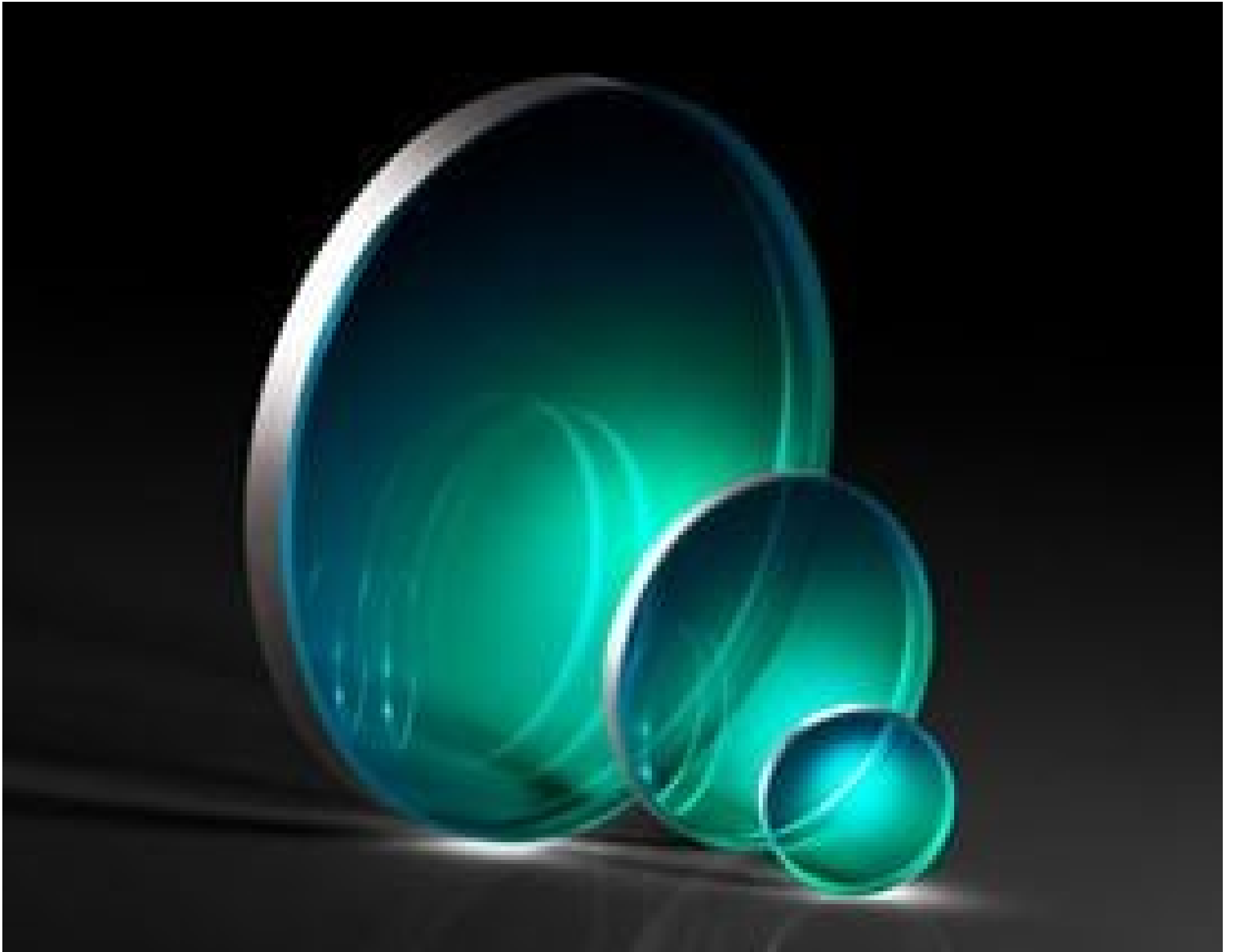


## TECHSPEC® 50mm Dia., 1mm Thick, VIS-NIR Coated, λ/4 Fused Silica Window



TECHSPEC® λ/4 UV Fused Silica Windows

Stock #72-406 **8 In Stock**

⊖ 1 ⊕ €217<sup>33</sup>

**ADD TO CART**

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | €217,33 each                  |
| Qty 6-25       | €173,04 each                  |
| Qty 26-49      | €162,23 each                  |
| Need More?     | <a href="#">Request Quote</a> |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

### SPECIFICATIONS

#### General

Protective Window **Type:**

## Physical & Mechanical Properties

Protective as needed **Bevel:**

90 **Clear Aperture (%):**

45.00 **Clear Aperture CA (mm):**

50.00 +0.00/-0.10 **Diameter (mm):**

1.00 ±0.10 **Thickness (mm):**

Fine Ground **Edges:**

522.00 **Knoop Hardness (kg/mm<sup>2</sup>):**

<1 **Parallelism (arcmin):**

0.16 **Poisson's Ratio:**

73 **Young's Modulus (GPa):**

## Optical Properties

67.8 **Abbe Number (v<sub>d</sub>):**

VIS-NIR (400-1000nm) **Coating:**

**Coating Specification:**  
R<sub>abs</sub> ≤ 0.25% @ 880nm  
R<sub>avg</sub> ≤ 1.25% @ 400 - 870nm  
R<sub>avg</sub> ≤ 1.25% @ 890 - 1000nm

1.458 **Index of Refraction (n<sub>d</sub>):**

**Fused Silica** (Corning 7980) **Substrate:**

40-20 **Surface Quality:**

λ/4 **Transmitted Wavefront, P-V:**

400 - 1000 **Wavelength Range (nm):**

**Damage Threshold, Reference:**   
5 J/cm<sup>2</sup> @ 532nm, 10ns

## Material Properties

**Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):**  
0.52 (+5 to +35°C)  
0.57 (0 to +200°C)  
0.48 (-100 to +200°C)

2.20 **Density (g/cm<sup>3</sup>):**

## Regulatory Compliance

**Compliant** **RoHS 2015:**

**View** **Certificate of Conformance:**

**Compliant** **REACH 241:**

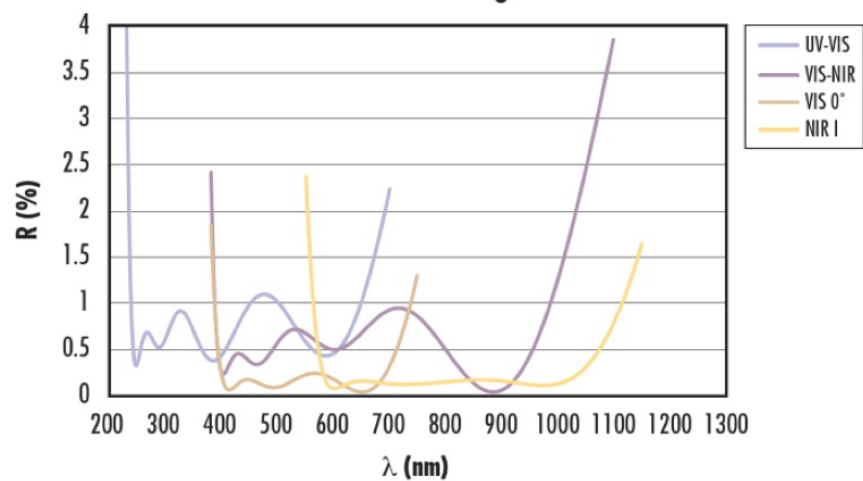
## PRODUCT DETAILS

- 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

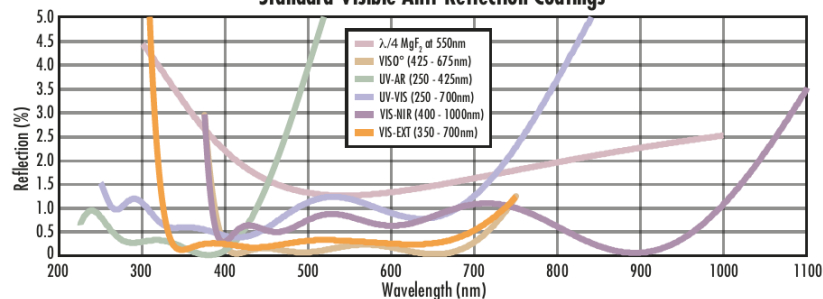
TECHSPEC® λ/4 UV Fused Silica Windows are manufactured with 40-20 surface quality and λ/4 transmitted wavefront error specifications, making them ideal for imaging applications. Featuring UV fused silica substrates, these windows provide high transmission from the ultraviolet (UV) through the visible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

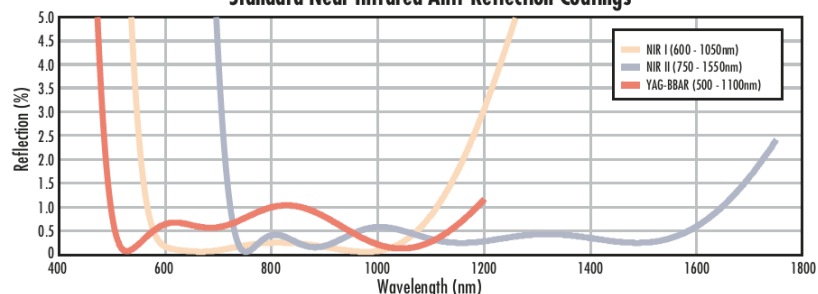
### Anti-Reflection Coating Curves



### Standard Visible Anti-Reflection Coatings

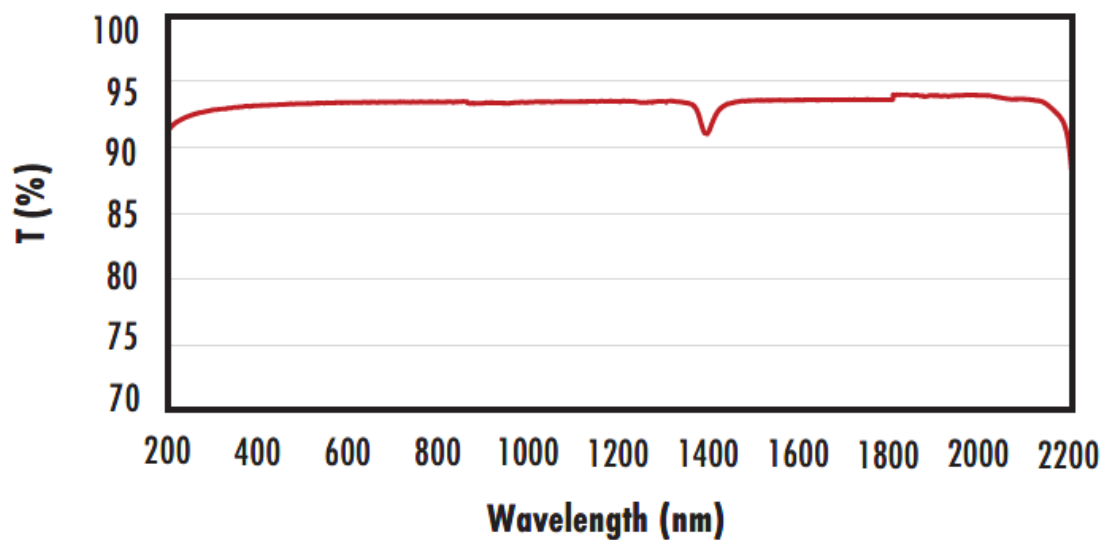


### Standard Near Infrared Anti-Reflection Coatings



## FUSED SILICA

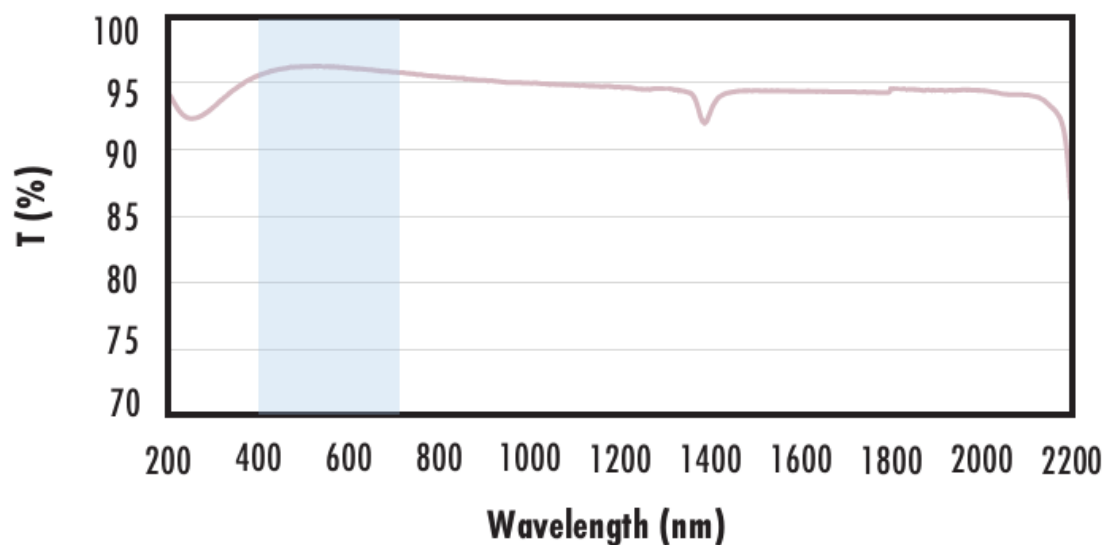
### Uncoated Fused Silica Typical Transmission



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.

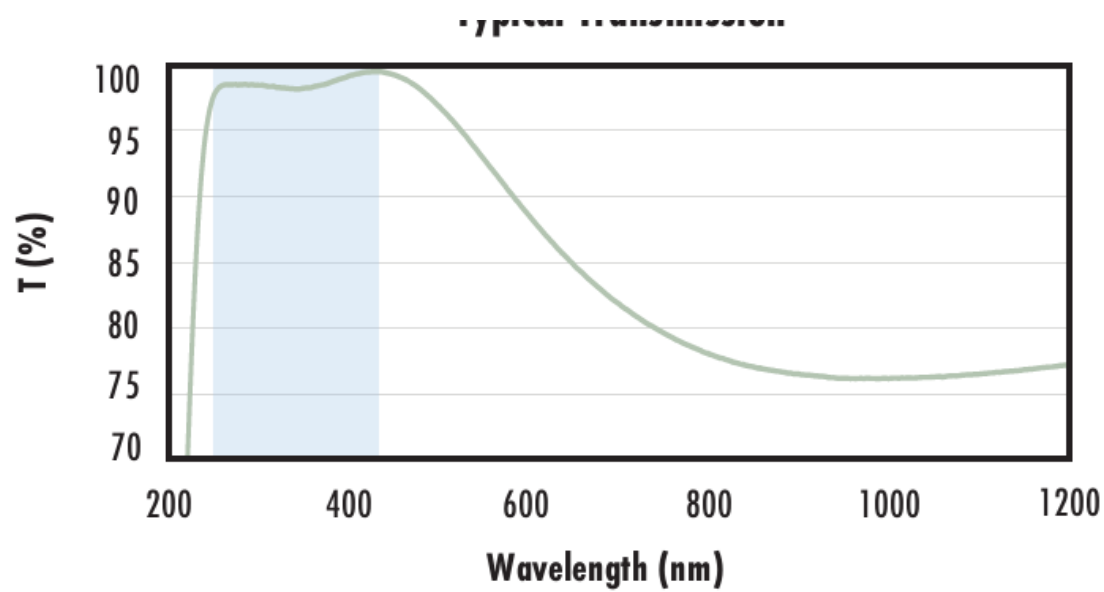
The blue shaded region indicates the coating design wavelength range, with the following specification:

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



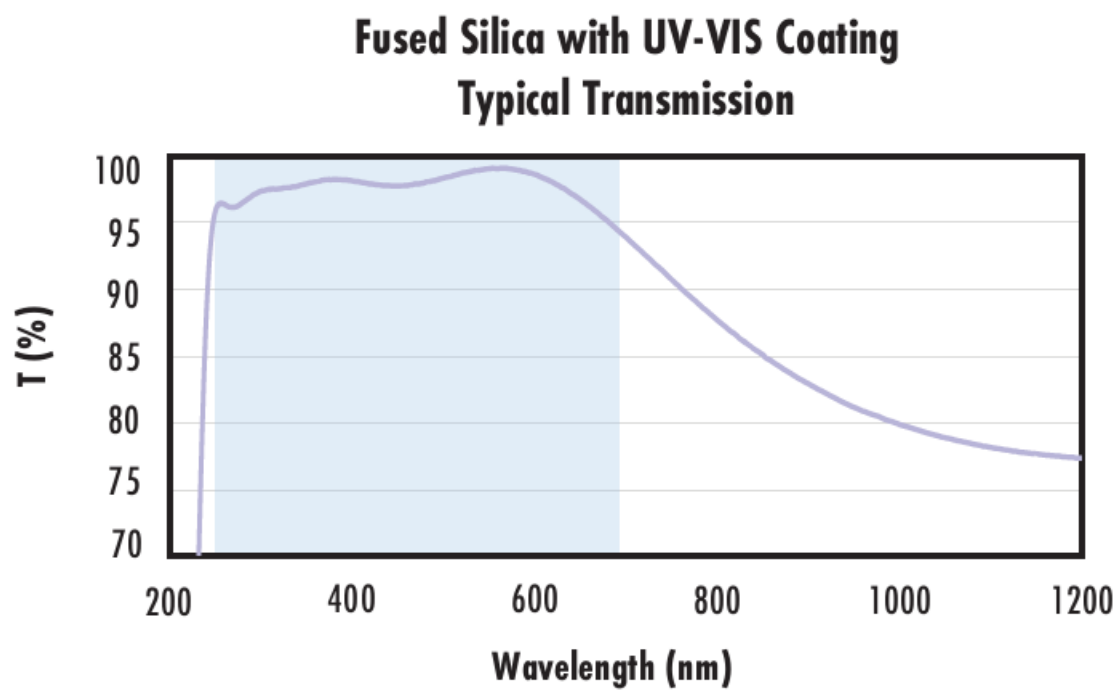
Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

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](#)



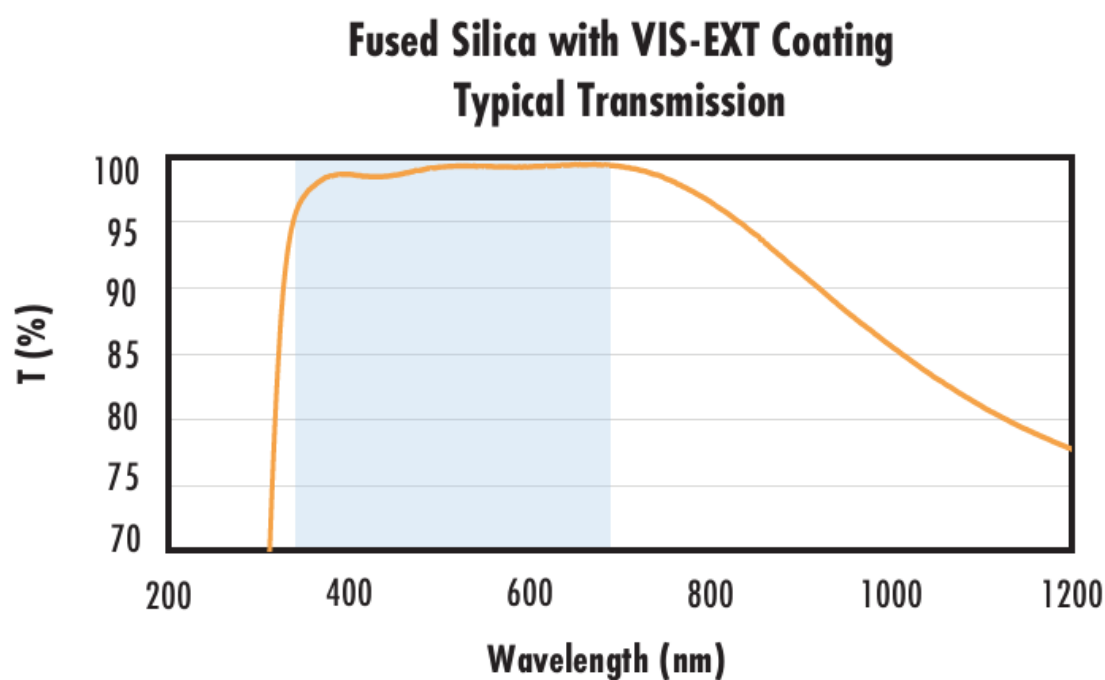
Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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

$R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$   
 $R_{avg} \leq 1.5\% @ 250 - 700\text{nm}$

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

[Click Here to Download Data](#)



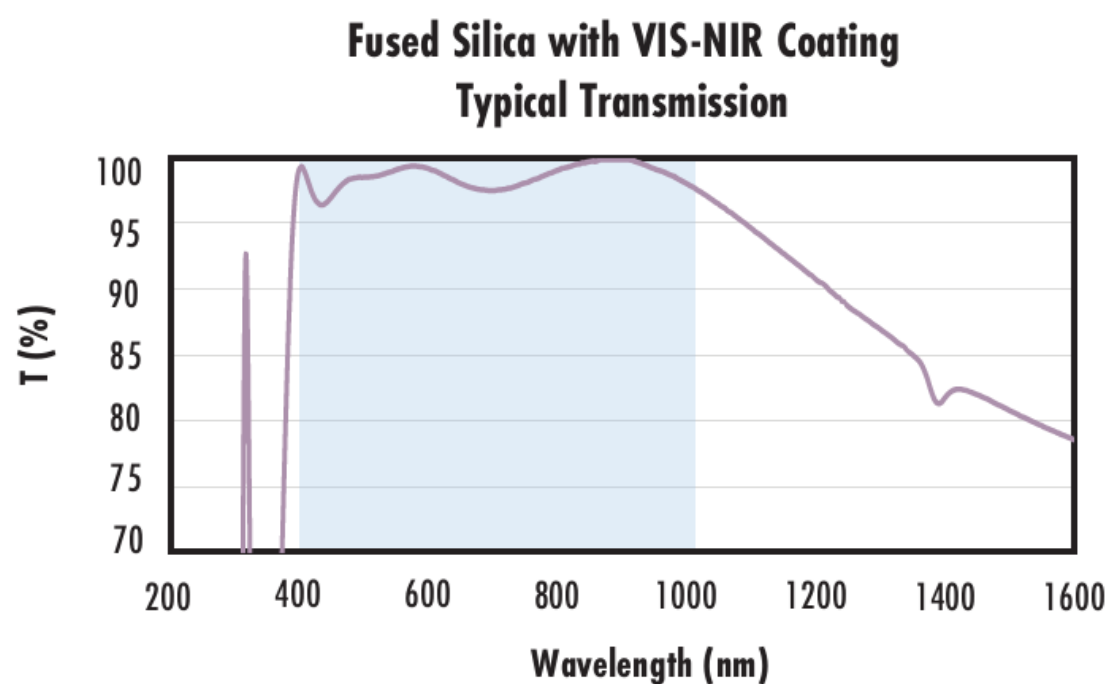
Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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

[Click Here to Download Data](#)



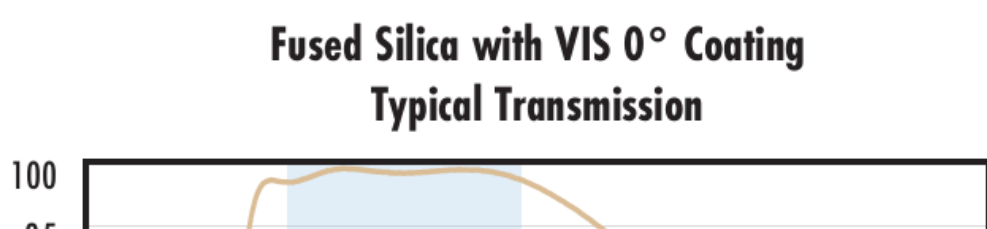
Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

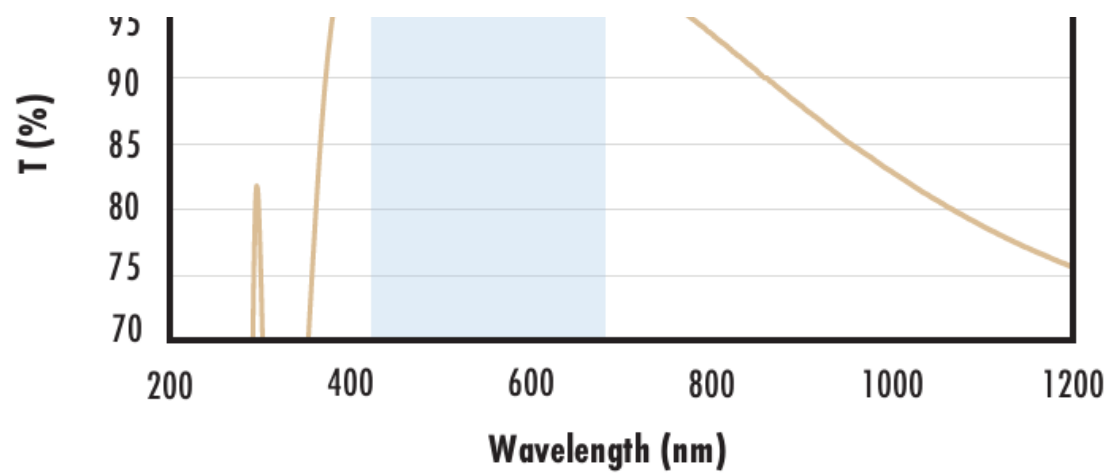
$R_{abs} \leq 0.25\% @ 880\text{nm}$   
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$   
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$

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

[Click Here to Download Data](#)

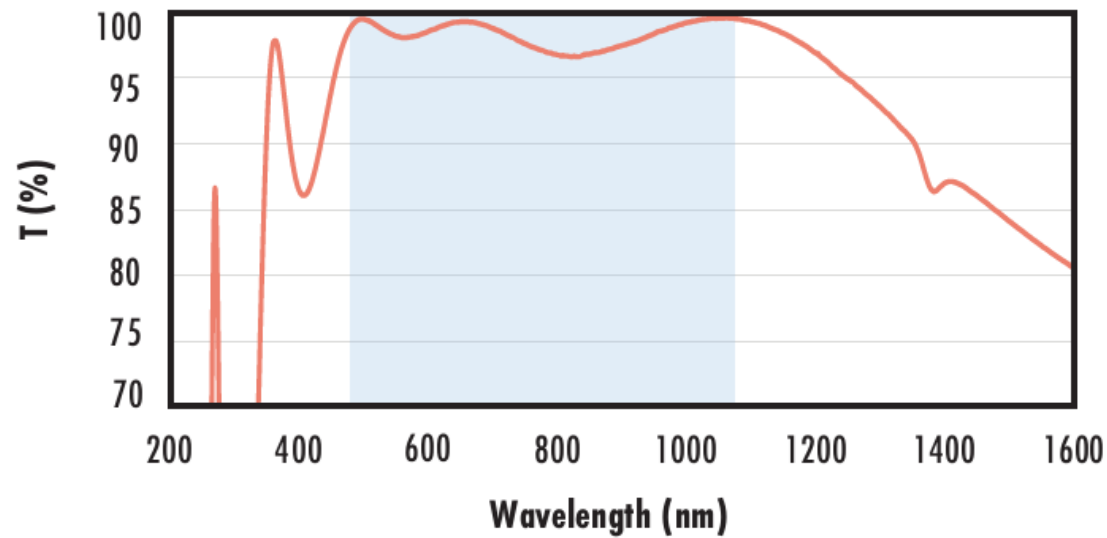


Typical transmission of a 3mm thick fused silica window with VIS



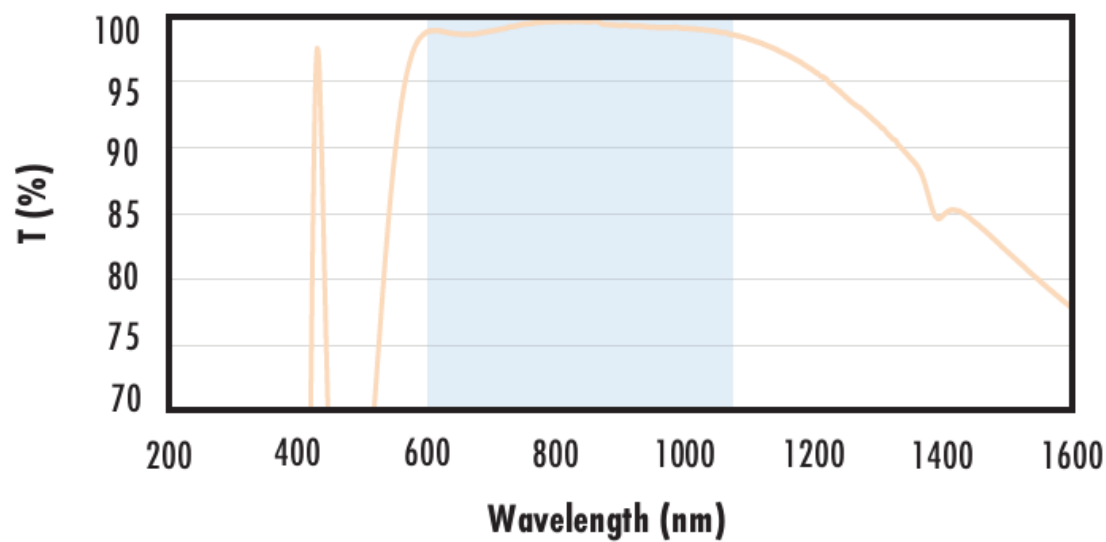
0° (425-675nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 0.4\% @ 425 - 675nm$   
 Data outside this range is not guaranteed and is for reference only.  
[Click Here to Download Data](#)

**Fused Silica with YAG-BBAR Coating  
 Typical Transmission**



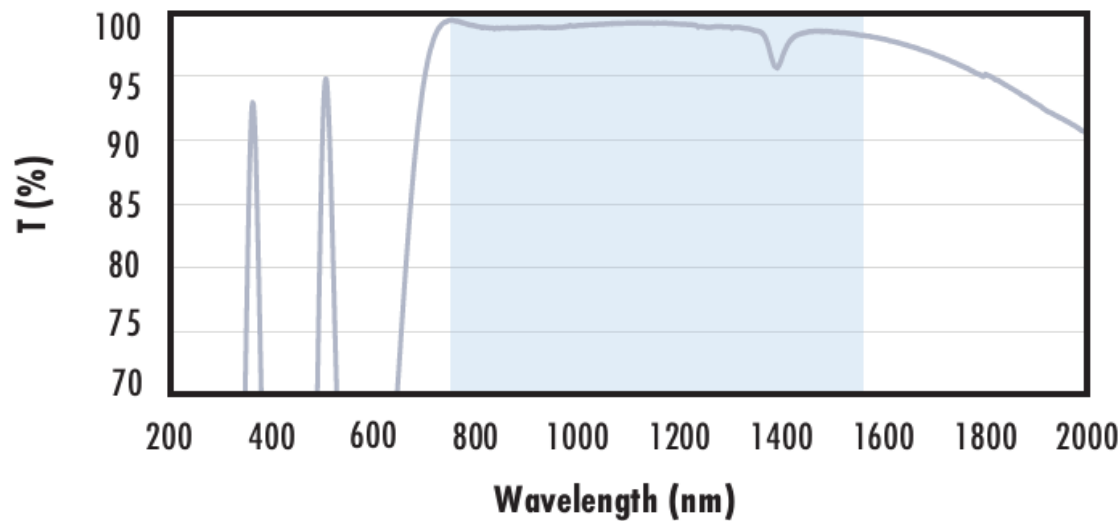
Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{abs} \leq 0.25\% @ 532nm$   
 $R_{abs} \leq 0.25\% @ 1064nm$   
 $R_{avg} \leq 1.0\% @ 500 - 1100nm$   
 Data outside this range is not guaranteed and is for reference only.  
[Click Here to Download Data](#)

**Fused Silica with NIR I Coating  
 Typical Transmission**



Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 0.5\% @ 600 - 1050nm$   
 Data outside this range is not guaranteed and is for reference only.  
[Click Here to Download Data](#)

**Fused Silica with NIR II Coating  
 Typical Transmission**



Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{abs} \leq 1.5\% @ 750 - 800nm$   
 $R_{abs} \leq 1.0\% @ 800 - 1550nm$   
 $R_{avg} \leq 0.7\% @ 750 - 1550nm$   
 Data outside this range is not guaranteed and is for reference only.  
[Click Here to Download Data](#)

COATING CURVES

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](#).

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