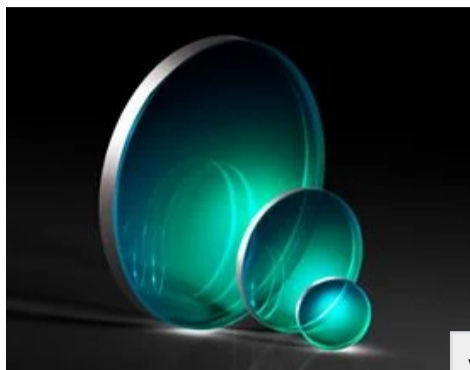


**TECHSPEC®**

# 20mm Dia., 1mm Thick, NIR I Coated, $\lambda/4$ Fused Silica Window



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

Stock #72-350 **5 In Stock**

1 A\$235<sup>.20</sup>

**ADD TO CART**

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | A\$235.20 each                |
| Qty 6-25       | A\$188.80 each                |
| Qty 26-49      | A\$176.00 each                |
| Need More?     | <a href="#">Request Quote</a> |

| Product Downloads |                              |
|-------------------|------------------------------|
| STEP:step         | Curve:pdf                    |
| PDF Drawing:pdf   | IGES:igs                     |
| Curve (xlsx)      | eDrawing:eprt                |
| EO Spec Sheet     | <a href="#">Download All</a> |

## General

**Type:** Protective Window

## Physical & Mechanical Properties

|                                      |   |
|--------------------------------------|---|
| <b>Clear Aperture CA (mm):</b> 18.00 | <b>Diameter (mm):</b> 20.00<br>+0.00/-0.10        |
| <b>Thickness (mm):</b> 1.00 ±0.10    | <b>Parallelism (arcmin):</b> <1                   |
| <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> NIR I (600-1050nm)                                     | <b>Substrate:</b> <b>Fused Silica</b><br>(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> $\lambda/4$                         | <b>Abbe Number (v<sub>d</sub>):</b> 67.8                |
| <b>Coating Specification:</b> R <sub>avg</sub> ≤0.5% @ 600 - 1050nm    | <b>Wavelength Range (nm):</b> 600 - 1050                |
| <b>Damage Threshold, Reference:</b> 7 J/cm <sup>2</sup> @ 1064nm, 10ns |   |

## Material Properties

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

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)

## Regulatory Compliance

RoHS 2015: **Compliant**

Certificate of Conformance: **View**

REACH 241: **Compliant**

## 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](#).

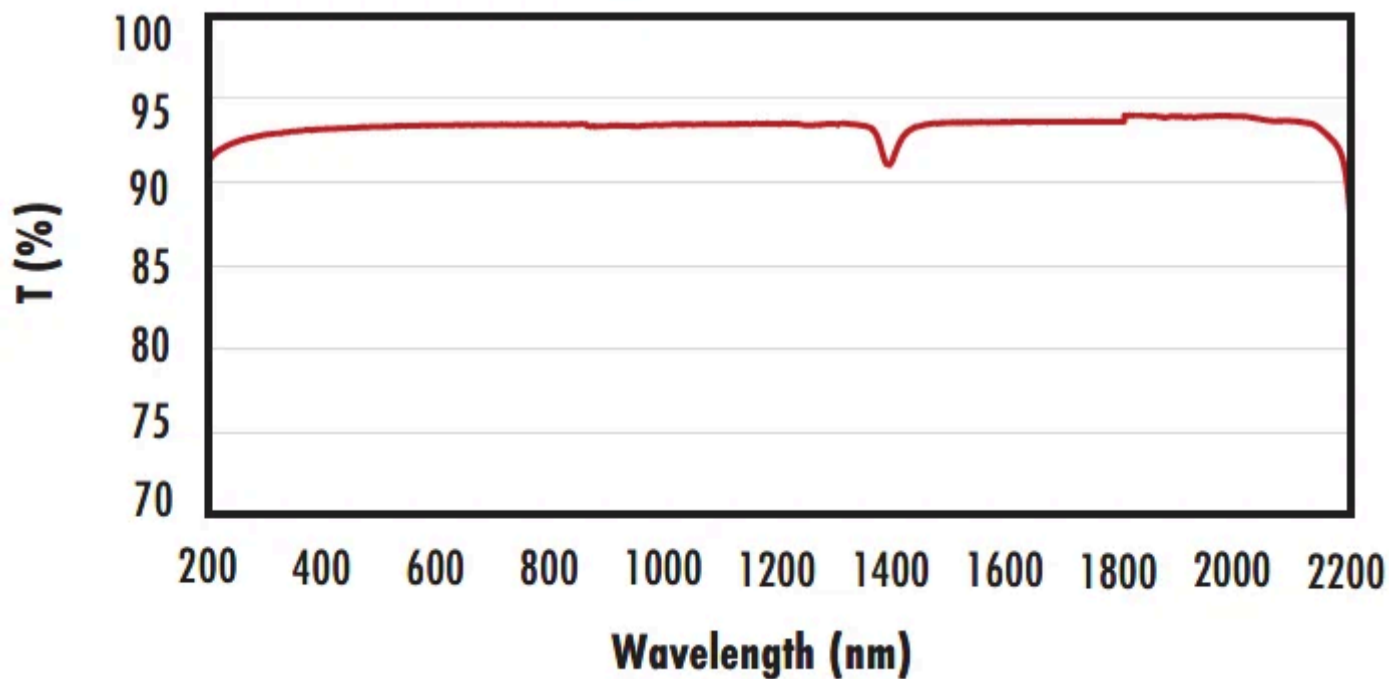
## Product Details

- 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

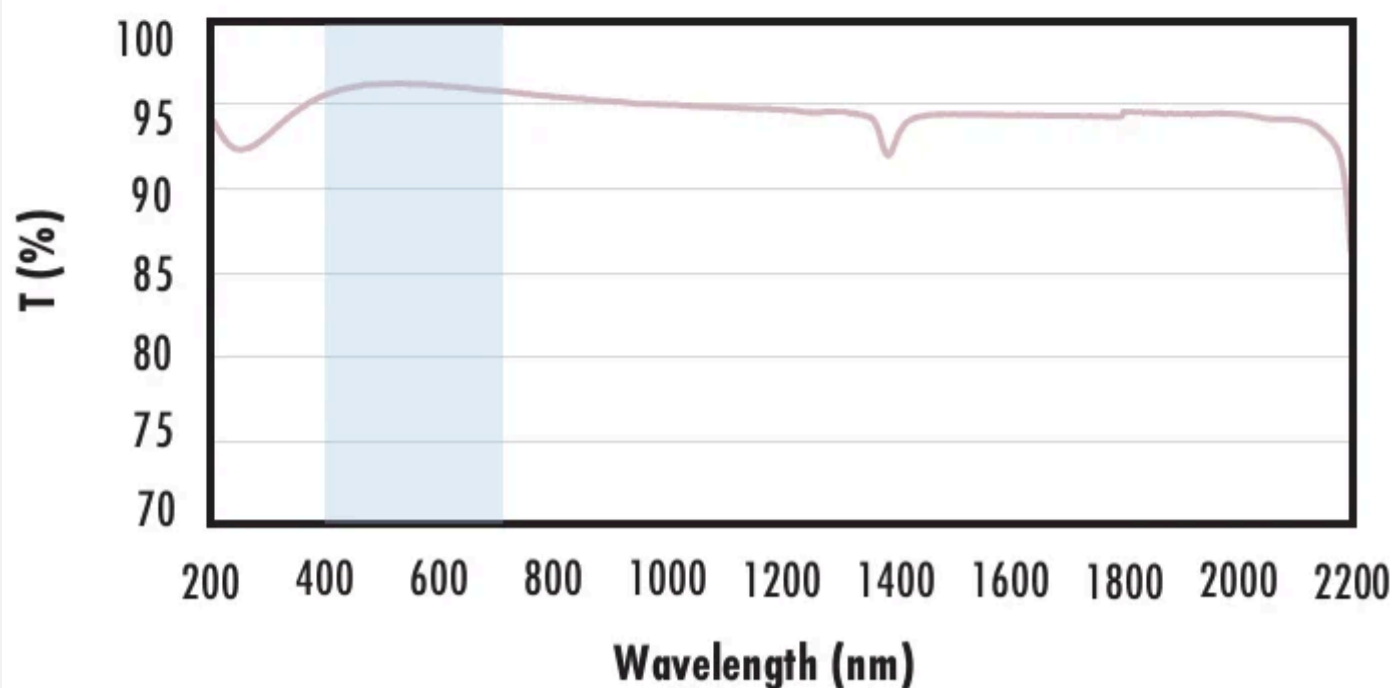
### Uncoated Fused Silica Typical Transmission



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.

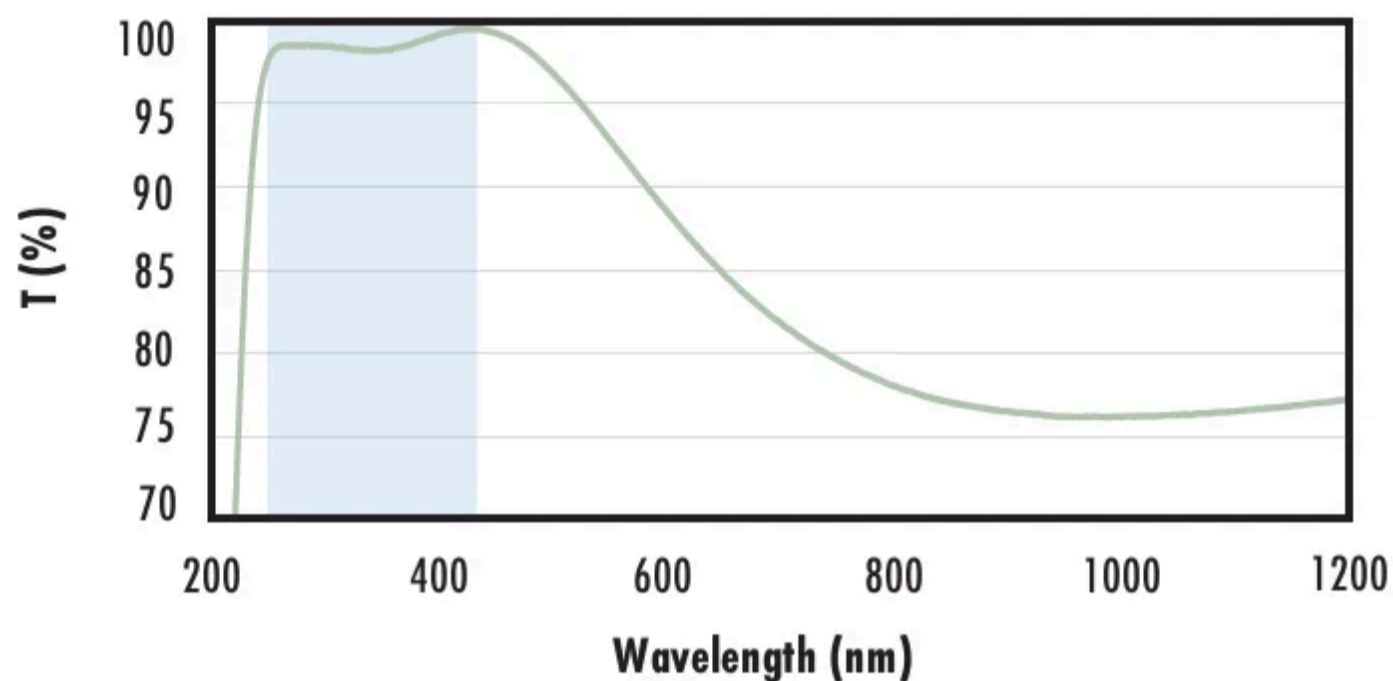
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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:

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

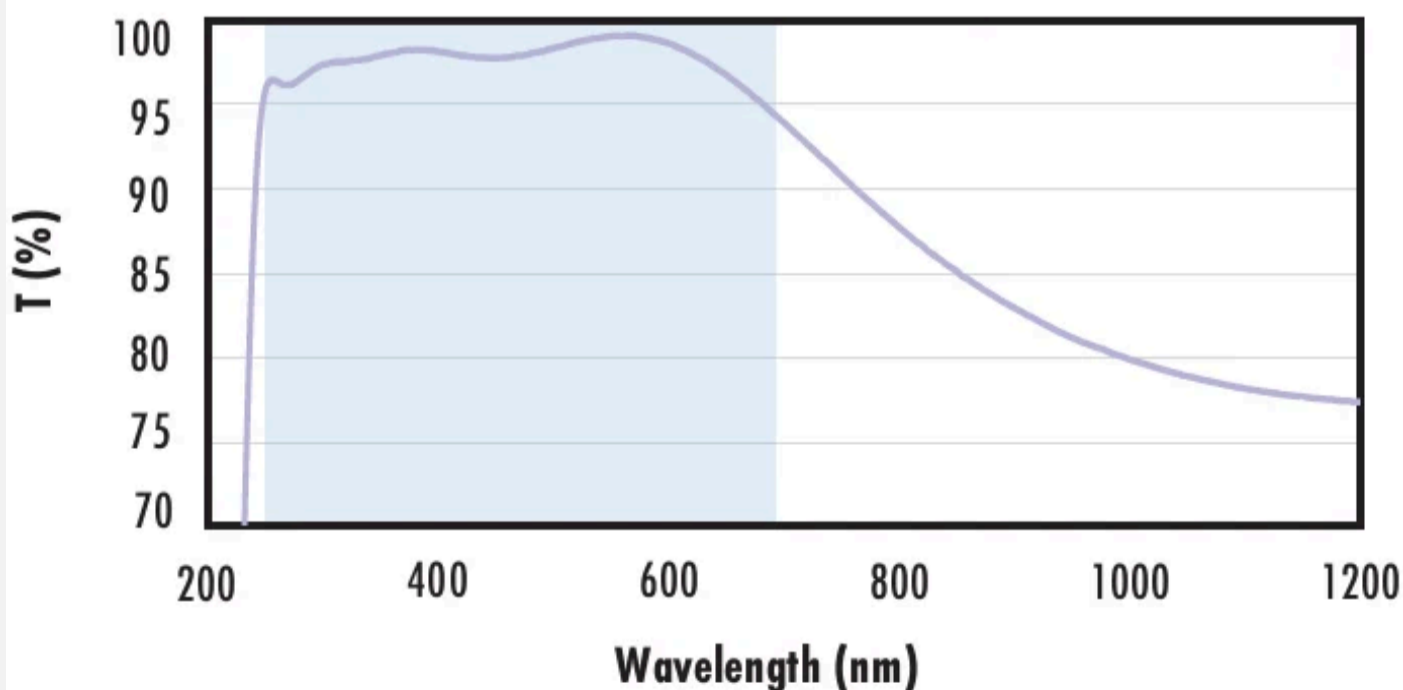
$$R_{avg} \leq 0.75\% \text{ @ } 250 - 425\text{nm}$$

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

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

[Click Here to Download Data](#)

### 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:

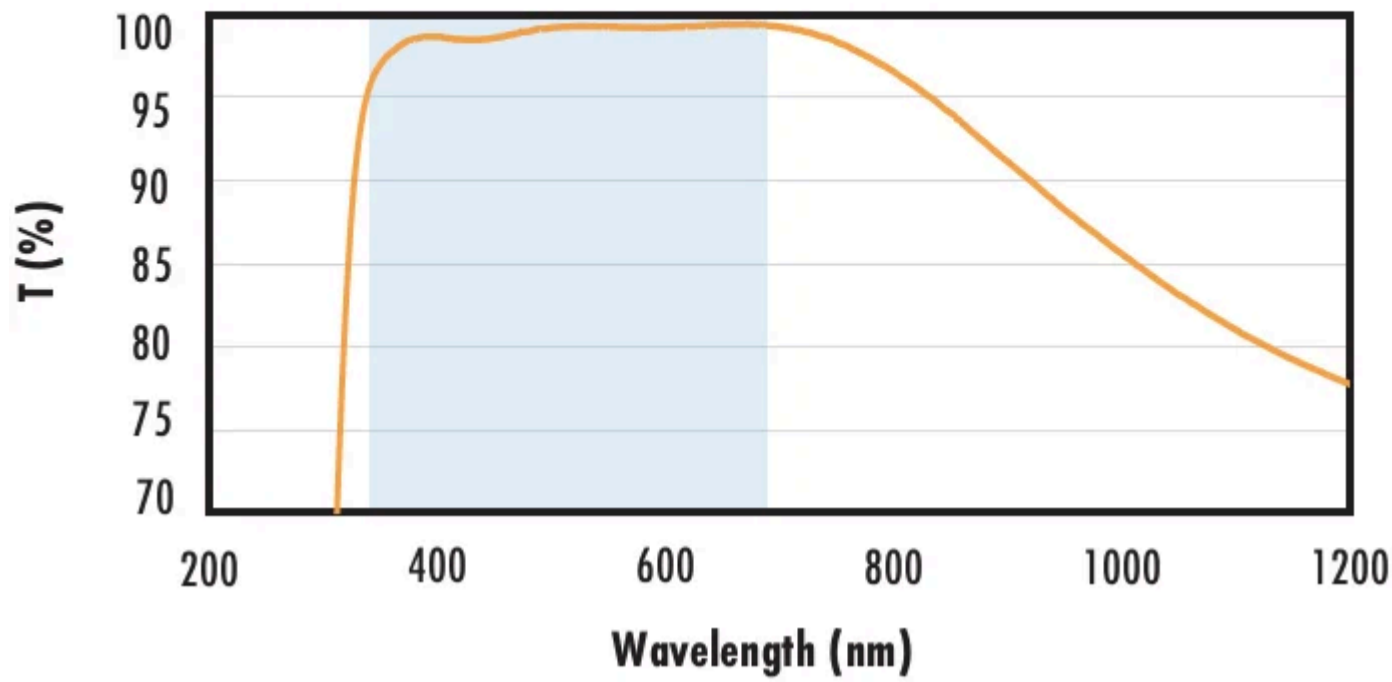
$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

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

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.

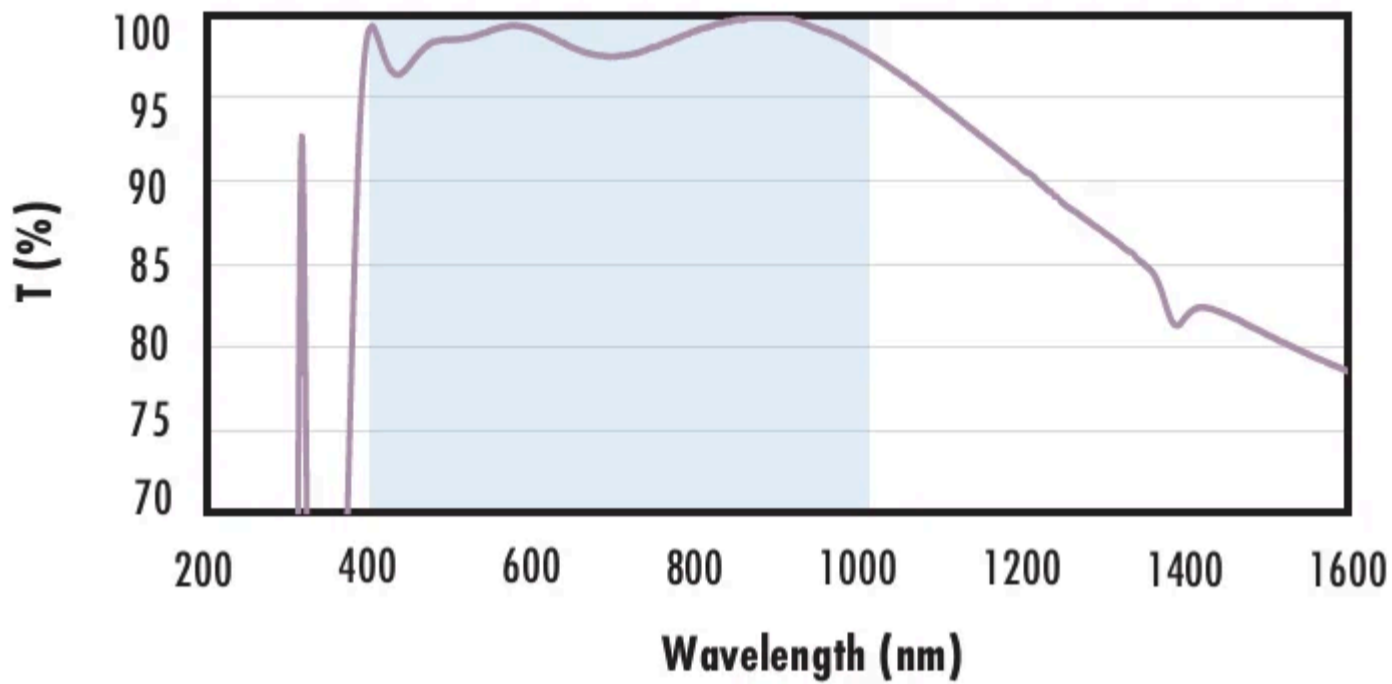
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

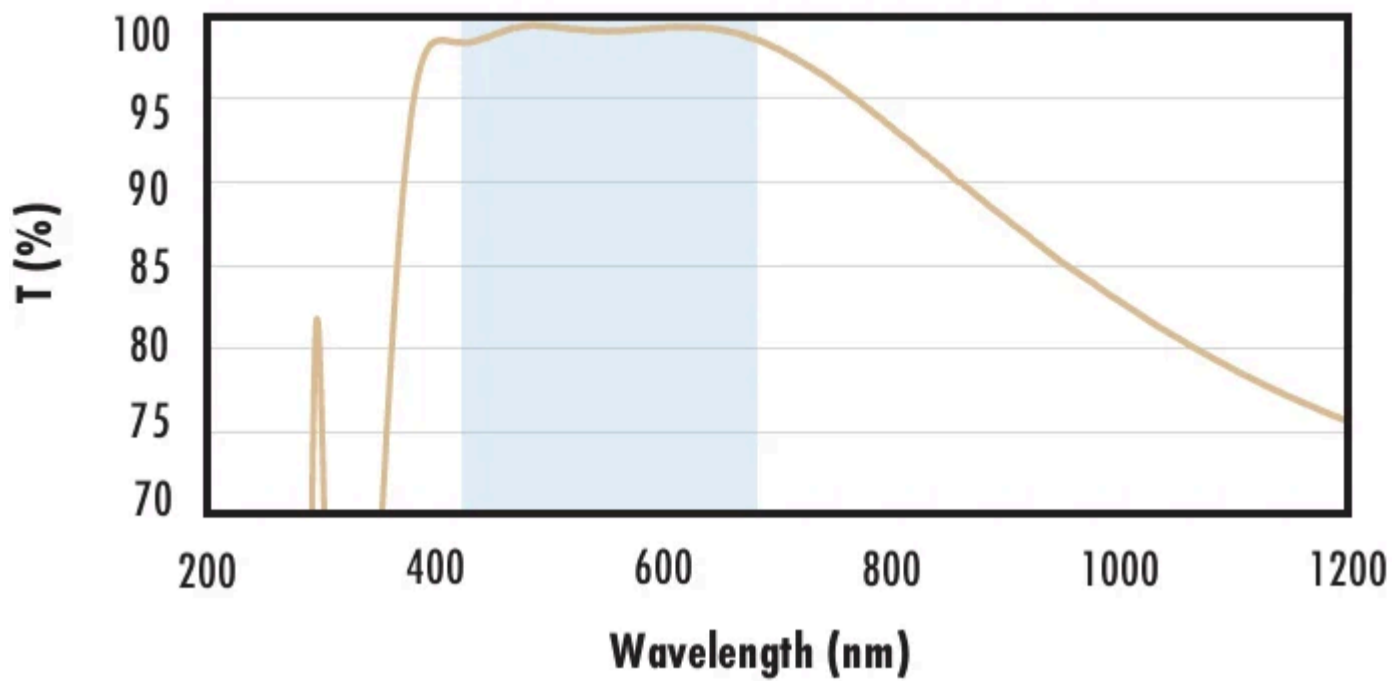
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

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

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

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### 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.

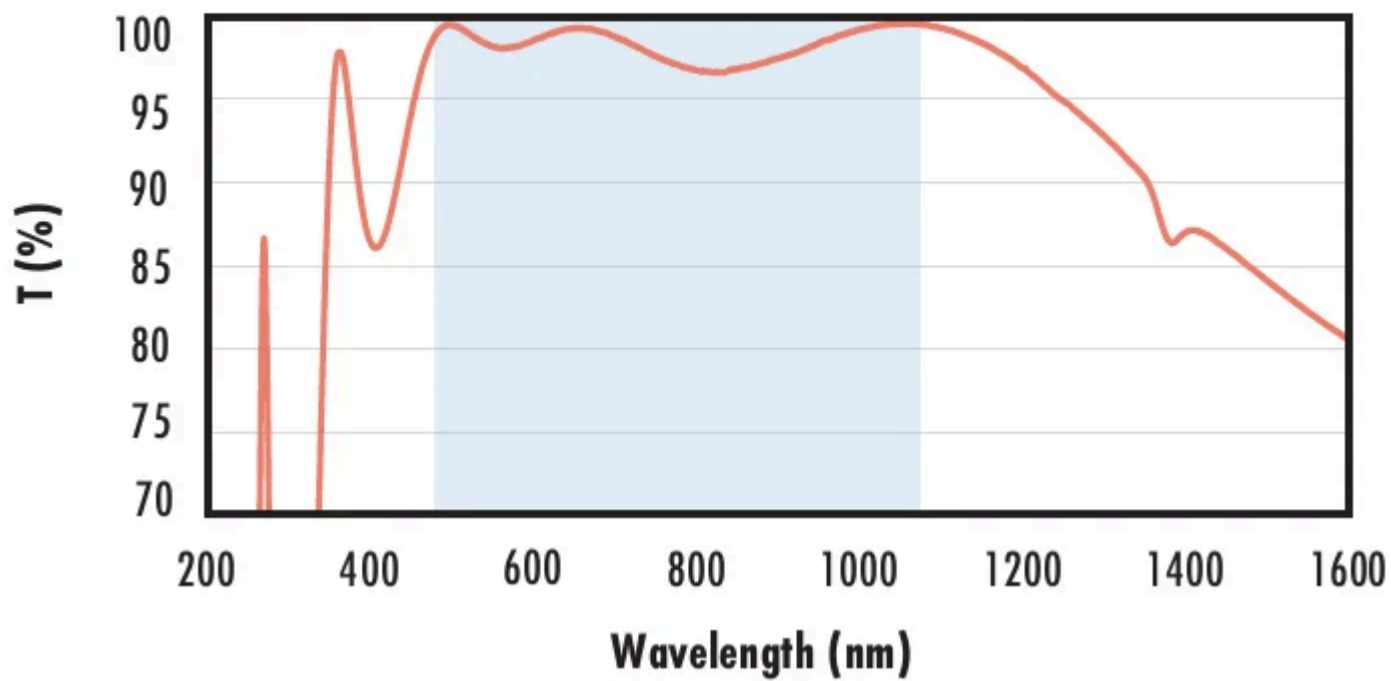
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

### 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.

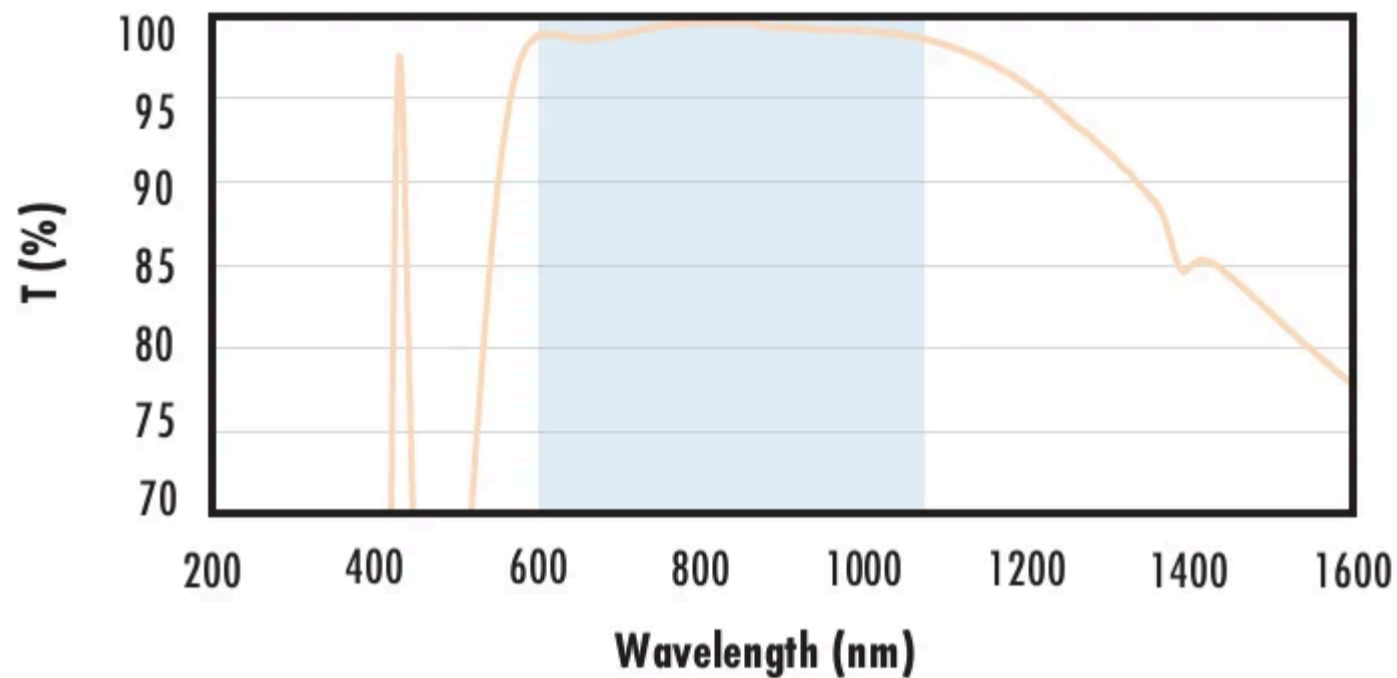
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{abs} \leq 0.25\% @ 532nm$
- $R_{abs} \leq 0.25\% @ 1064nm$
- $R_{avg} \leq 1.0\% @ 500 - 1100nm$

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.

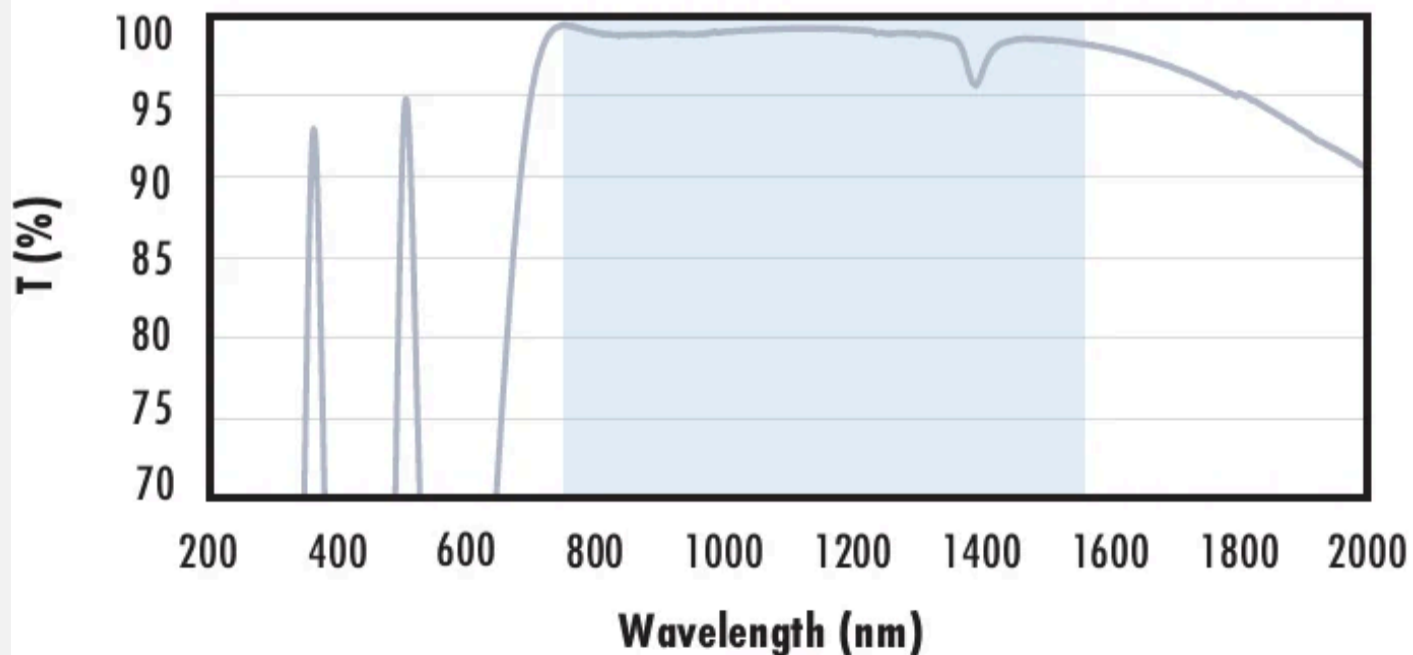
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{avg} \leq 0.5\% @ 600 - 1050nm$

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:

- $R_{abs} \leq 1.5\% @ 750 - 800nm$
- $R_{abs} \leq 1.0\% @ 800 - 1550nm$
- $R_{avg} \leq 0.7\% @ 750 - 1550nm$

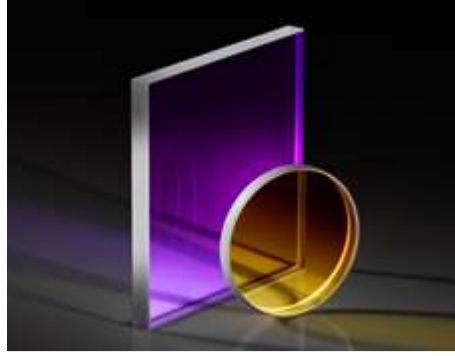
Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

**Related Products**



$\lambda/10$  UV Fused Silica Windows



1 $\lambda$  UV Fused Silica Windows

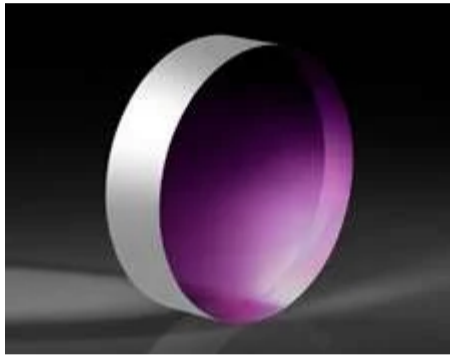


C, S, and T-Mount Circular  
Optic Mounts



PUROSOL™ Optical Cleaner

## Frequently Purchased Together



#23-427 - 20mm Dia., 1mm Thick,  
NIR I Coated  $\lambda/4$  N-BK7 Window  
A\$169.60

Qty

## Resources

### Media Type

- Application Note
- Technical Tool
- Video
- Glossary
- FAQ

APPLICATION NOTE

Anti-Reflection  
(AR) Coatings

APPLICATION NOTE

An  
Introduction to  
Optical  
Coatings

TECHNICAL TOOL

Beam  
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