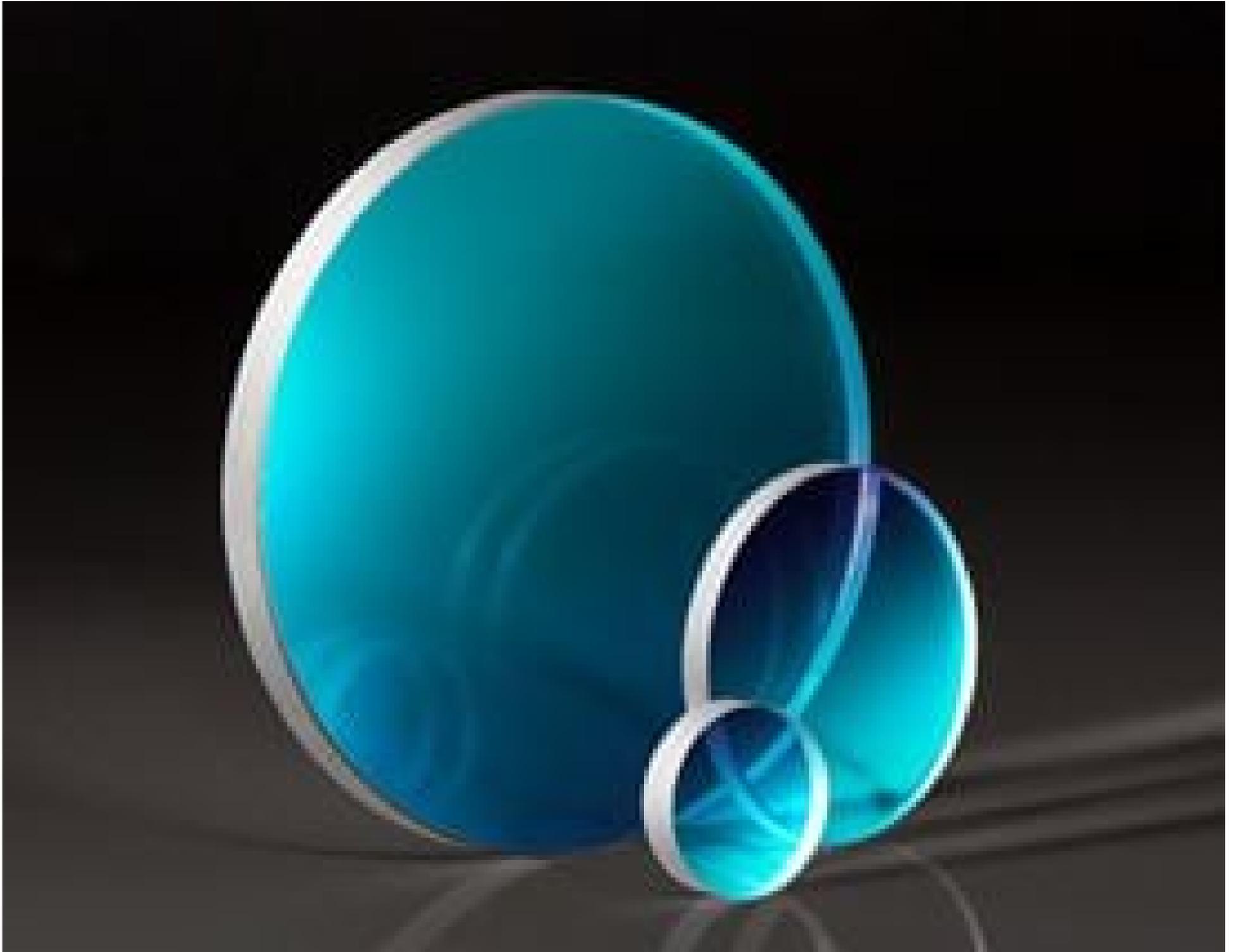


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TECHSPEC® 50mm Dia., NIR I Coated, 30' Wedge, Fused Silica Wedged Window



TECHSPEC® Fused Silica Wedged Windows

Stock **#25-620** **6 In Stock**

⊖ 1 ⊕ A\$481⁰⁰

ADD TO CART

Volume Pricing	
Qty 1-5	A\$481.60 each
Qty 6-25	A\$384.00 each
Qty 26-49	A\$360.00 each
Need More?	Request Quote

Product Downloads

General

Wedged Window **Type:**

Physical & Mechanical Properties

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

50.00 +0.0/-0.10 **Diameter (mm):**

3.00 ±0.20 Thickness (mm):

Fine Ground Edges:

73 Young's Modulus (GPa):

30' ±10' Wedge Angle (arcmin):

Optical Properties

NIR I (600-1050nm) Coating:

Ravg ≤0.5% @ 600 - 1050nm Coating Specification:

1.458 Index of Refraction (n_d):

Fused Silica (Corning 7980) Substrate: □

M10 Surface Flatness (P-V):

20-10 Surface Quality:

600 - 1050 Wavelength Range (nm):

7 J/cm² @ 1064nm, 10ns Damage Threshold, Reference: □

Material Properties

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

Regulatory Compliance

Compliant RoHS 2015:

View Certificate of Conformance:

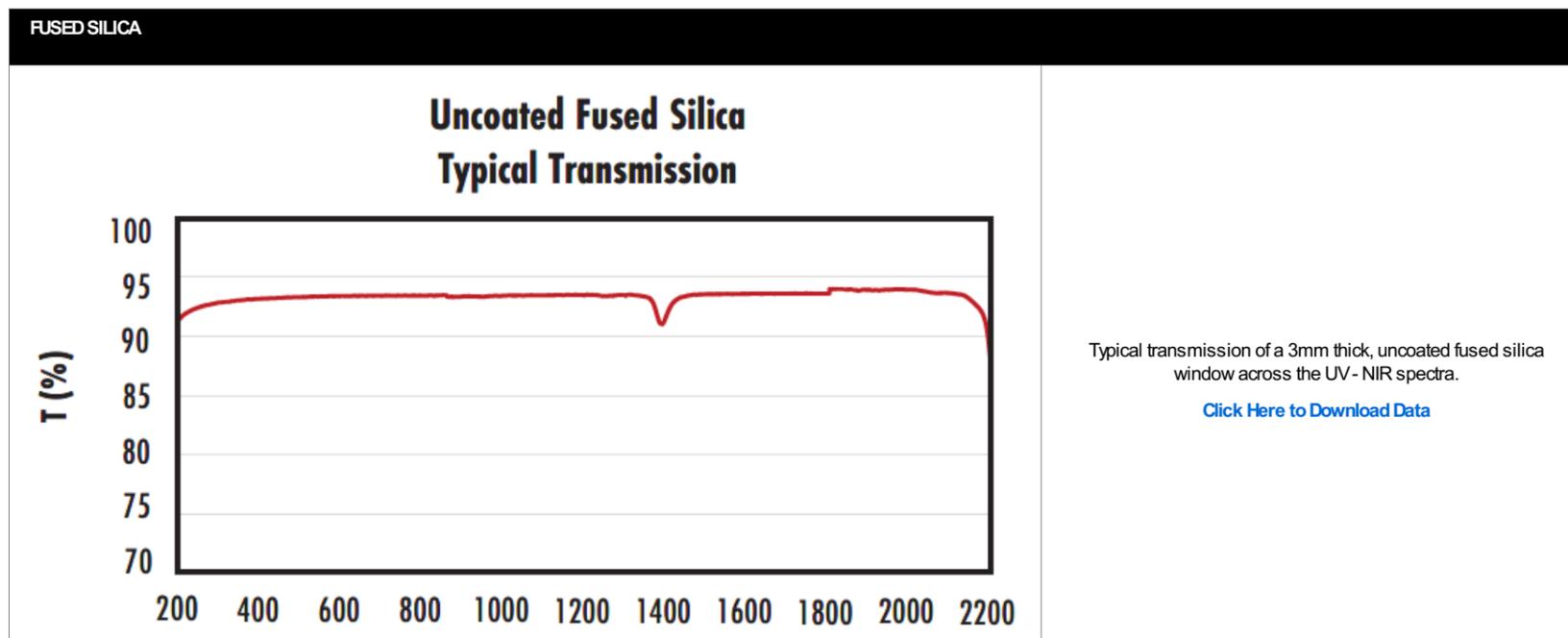
Compliant Reach 235:

Product Details

- UV Fused Silica Substrates with a 30 Arcminute Wedge
- M10 Surface Flatness and 20-10 Surface Quality
- Prevent Laser Instability When Used in Laser Cavities
- [N-BK7 Wedged Windows](#) and [Fused Silica Flat Windows](#) Also Available

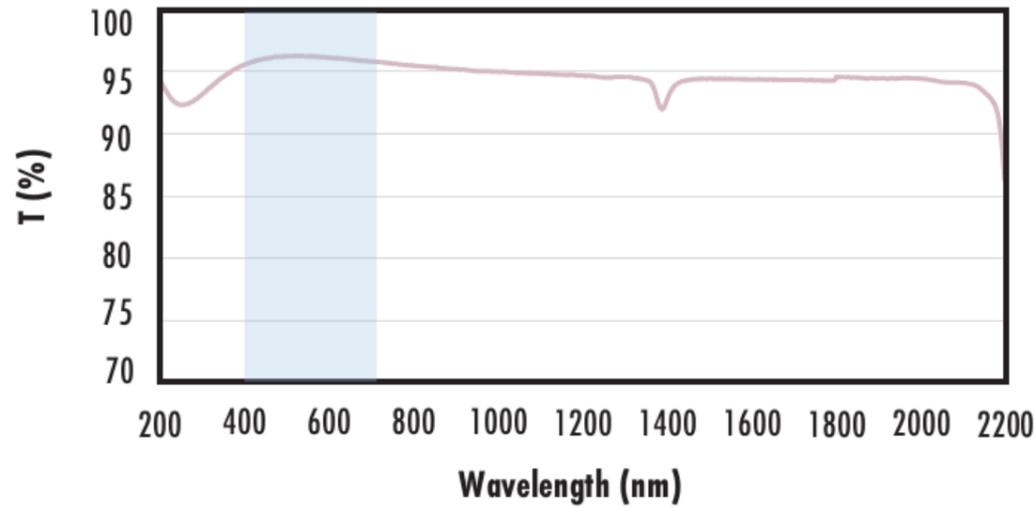
TECHSPEC® Fused Silica Wedged Windows are manufactured from UV grade fused silica and feature a 30 arcminute wedge. The wedge of these windows eliminates Etalon effects by preventing back surface reflections from traveling along the same optical path as the transmitted beam. This protects against laser instability, mode-hopping, and power spikes when used in laser cavities and beam interference effects when used externally. TECHSPEC® Fused Silica Wedged Windows are ideal for use in UV or high power laser applications due to their high UV transmittance and insensitivity to temperature variations. These windows can also be used as beam pick-off optics or beam samplers to monitor laser beam properties such as beam power over time.

Technical Information



Wavelength (nm)

Fused Silica with MgF₂ Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with MgF₂ (400-700nm) coating at 0° AOI.

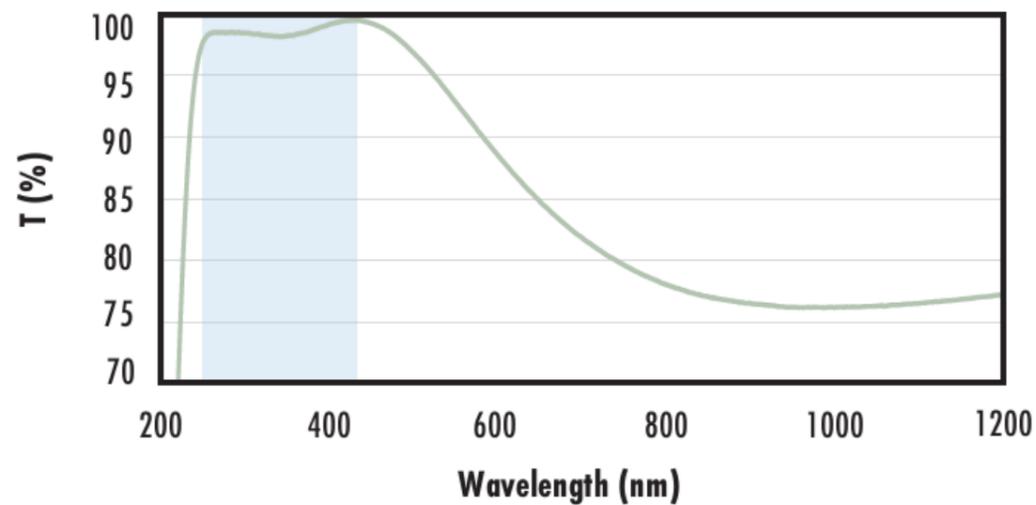
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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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:

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

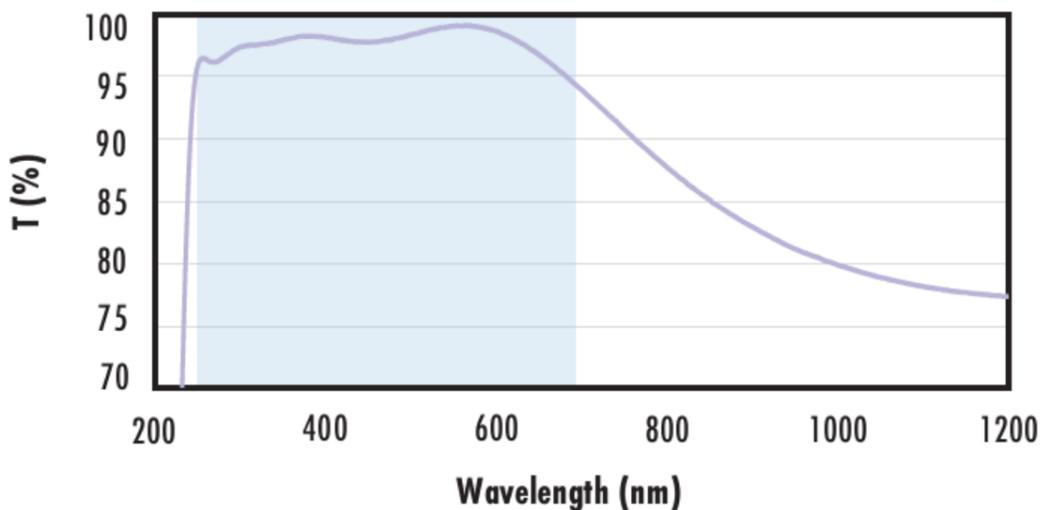
$$R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$$

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

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:

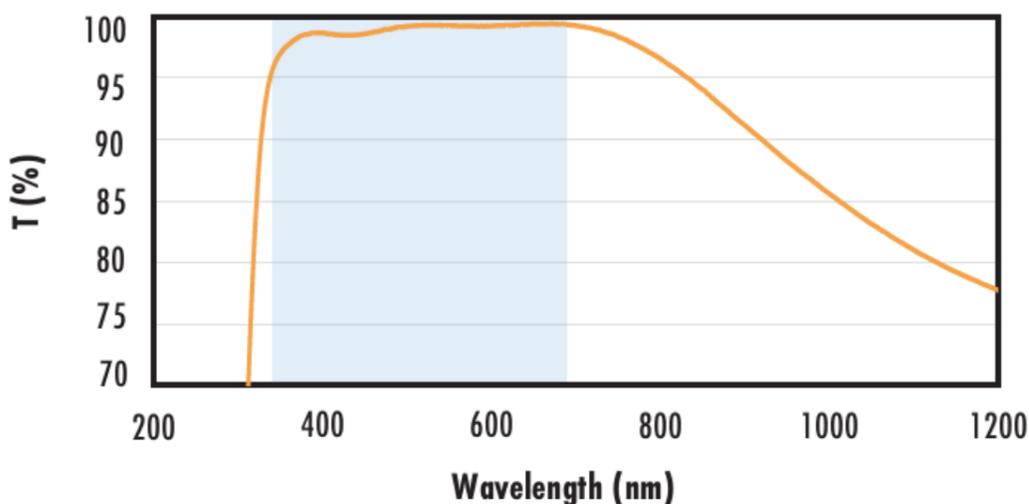
$$R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$$

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

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

[Click Here to Download Data](#)

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:

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

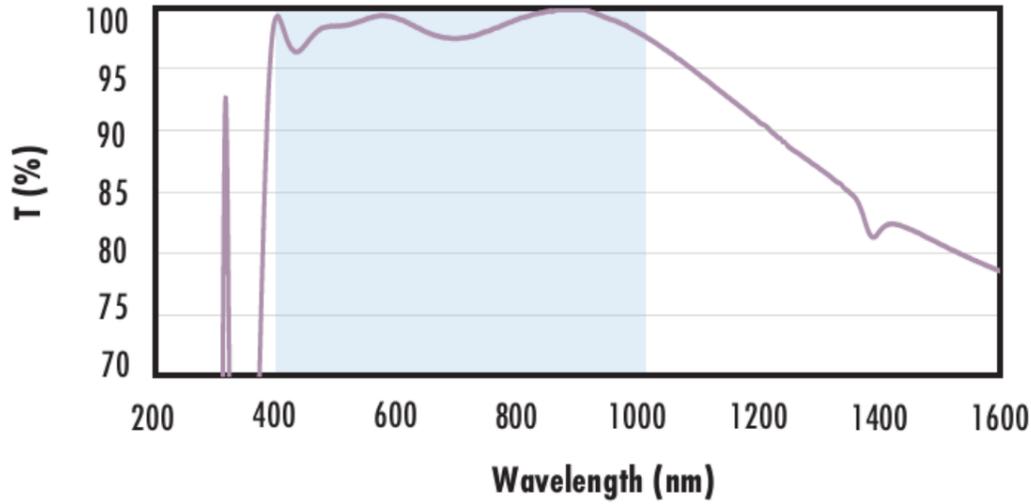
Data outside this range is not guaranteed and is for reference only.

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Fused Silica with VIS-MID Coating

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:

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

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

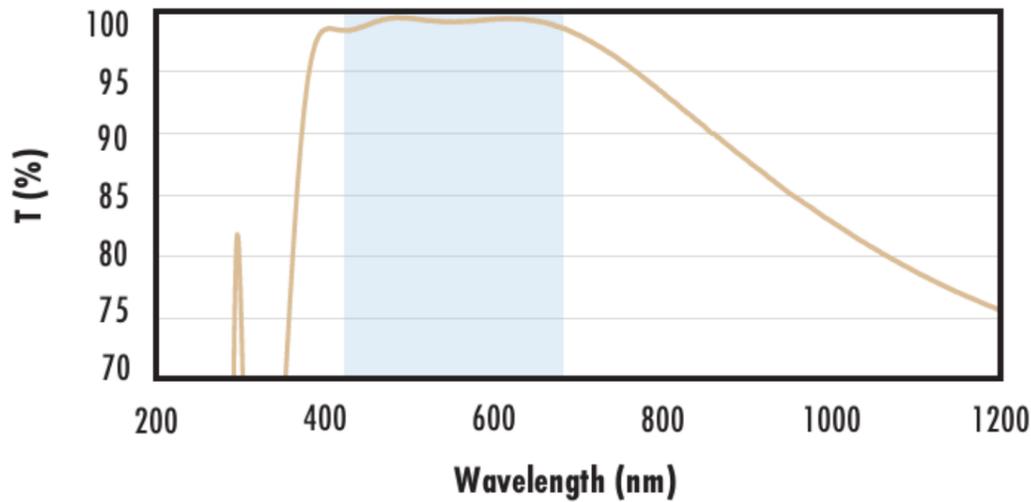
$$R_{avg} \leq 1.25\% @ 890 - 1000nm$$

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:

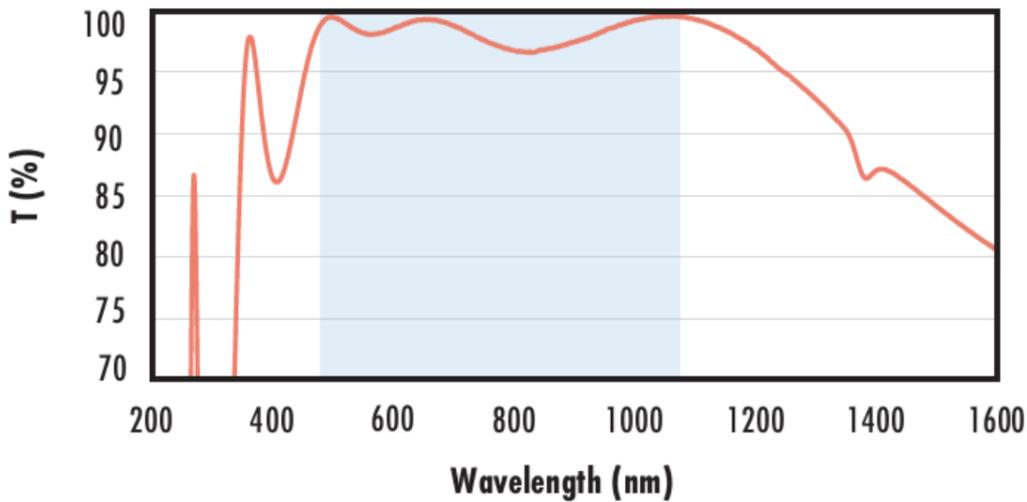
$$R_{avg} \leq 0.4\% @ 425 - 675nm$$

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

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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:

$$R_{abs} \leq 0.25\% @ 532nm$$

$$R_{abs} \leq 0.25\% @ 1064nm$$

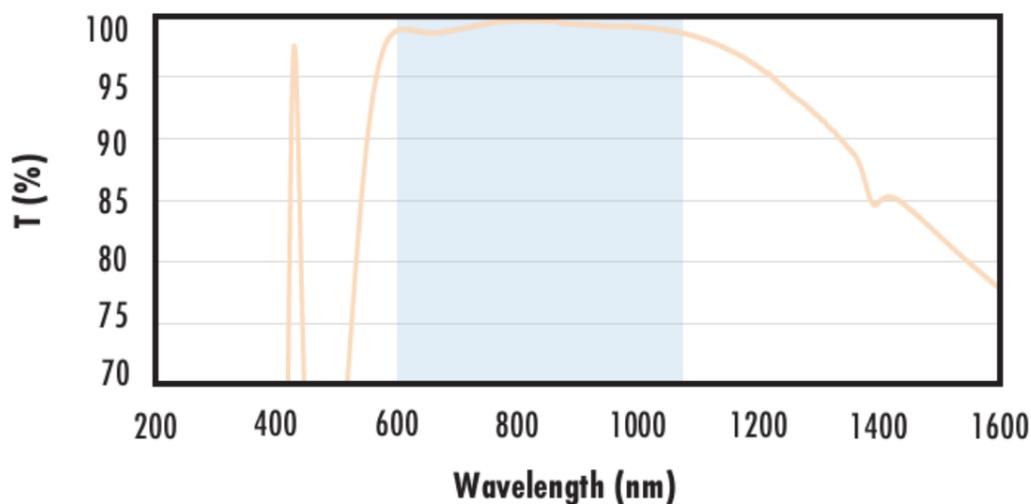
$$R_{avg} \leq 1.0\% @ 500 - 1100nm$$

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

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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.

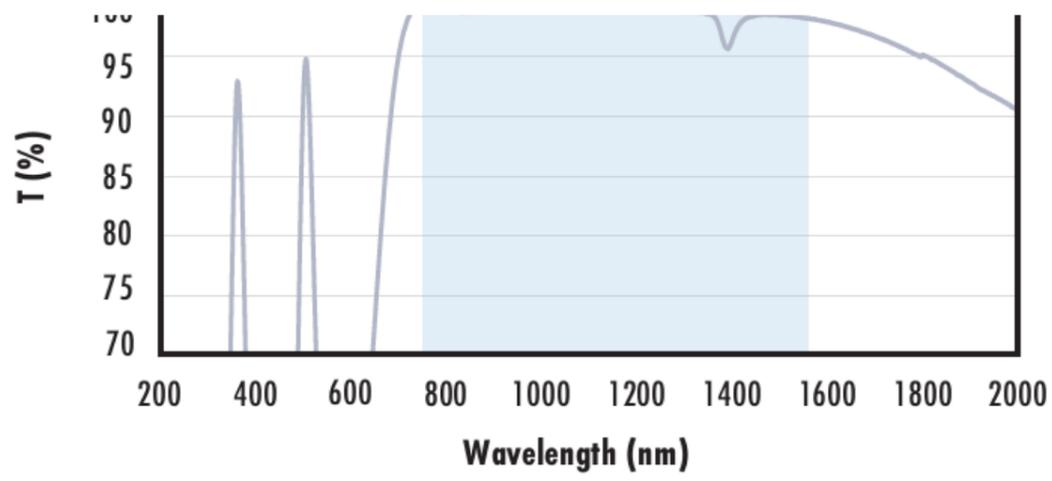
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Fused Silica with NIR II Coating

Typical Transmission



Typical transmission of a 3mm thick fused silica window with NIR II (1000 - 1600nm) coating at 0° AOI.



Typical transmission of a 3mm thick fused silica window with IIR
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.

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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](#).