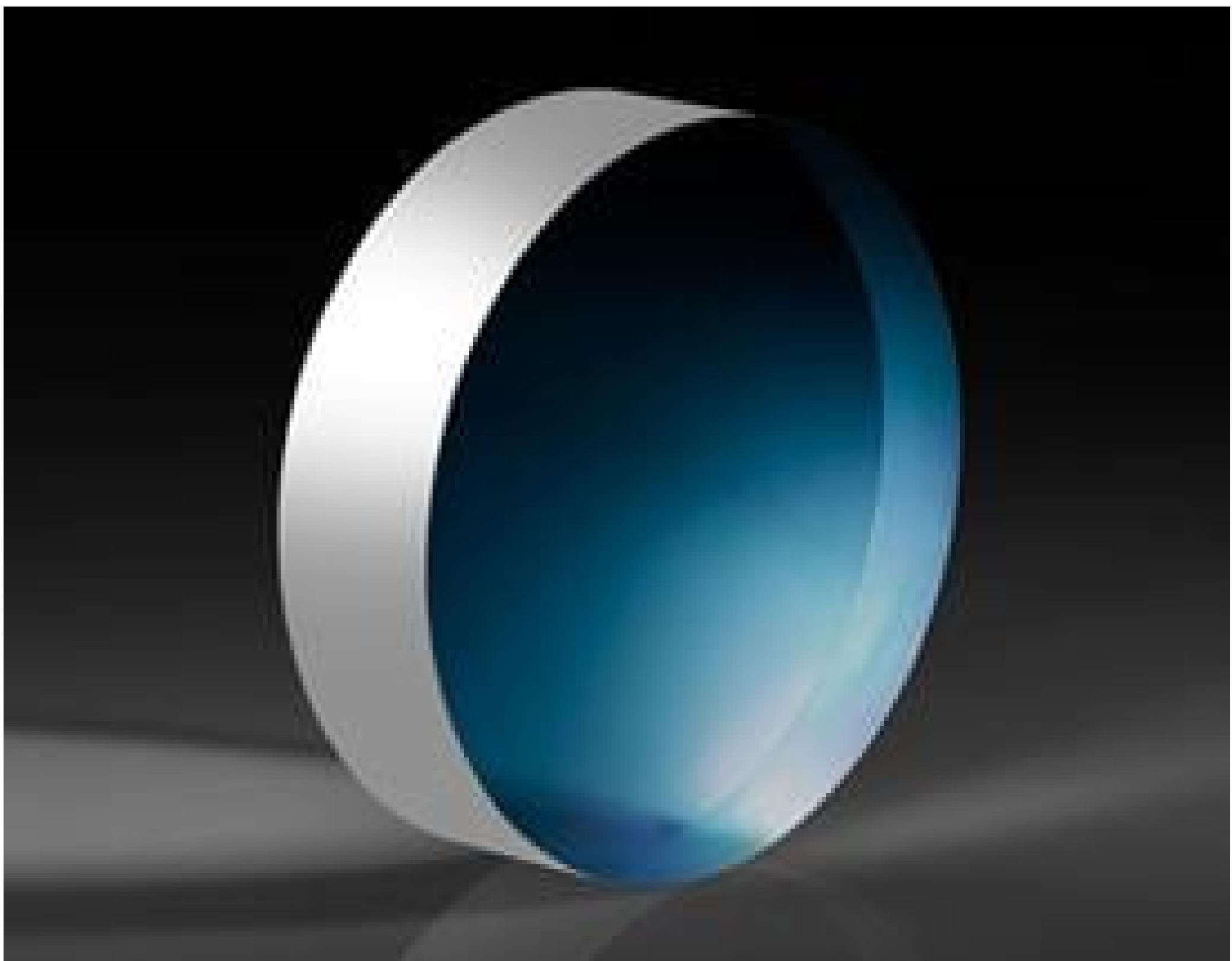


TECHSPEC® 10mm Dia. 1mm Thick VIS-NIR Coated, 1λ Fused Silica Window

Stock #49-638 20+ In Stock

 A\$174^{.40}**ADD TO CART**

Volume Pricing	
Qty 1-5	A\$174.40 each
Qty 6-25	A\$139.20 each
Qty 26-49	A\$130.40 each
Need More?	Request Quote

Product Downloads

SPECIFICATIONS**General**

Type:

Protective Window

Physical & Mechanical Properties

Protective as needed

Bevel:

90
Clear Aperture (%):

9.00
Clear Aperture CA (mm):

10.00 +0.00/-0.20
Diameter (mm):

1.00 ±0.38
Thickness (mm):

Fine Ground
Edges:

522.00
Knoop Hardness (kg/mm²):

<5
Parallelism (arcmin):

0.16
Poisson's Ratio:

73
Young's Modulus (GPa):

Optical Properties

67.8
Abbe Number (v_d):

VIS-NIR (400-1000nm)
Coating:

R_{abs} ≤0.25% @ 880nm
R_{avg} ≤1.25% @ 400 - 870nm
R_{avg} ≤1.25% @ 890 - 1000nm
Coating Specification:

1.458
Index of Refraction (n_d):

Fused Silica (Coming 7980)
Substrate:

1λ
Surface Flatness (P-V):

60-40
Surface Quality:

400 - 1000
Wavelength Range (nm):

5 J/cm² @ 532nm, 10ns
Damage Threshold, Reference:

Material Properties

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

2.20
Density (g/cm³):

Regulatory Compliance

Compliant
RoHS 2015:

Compliant
Reach 219:

View
Certificate of Conformance:

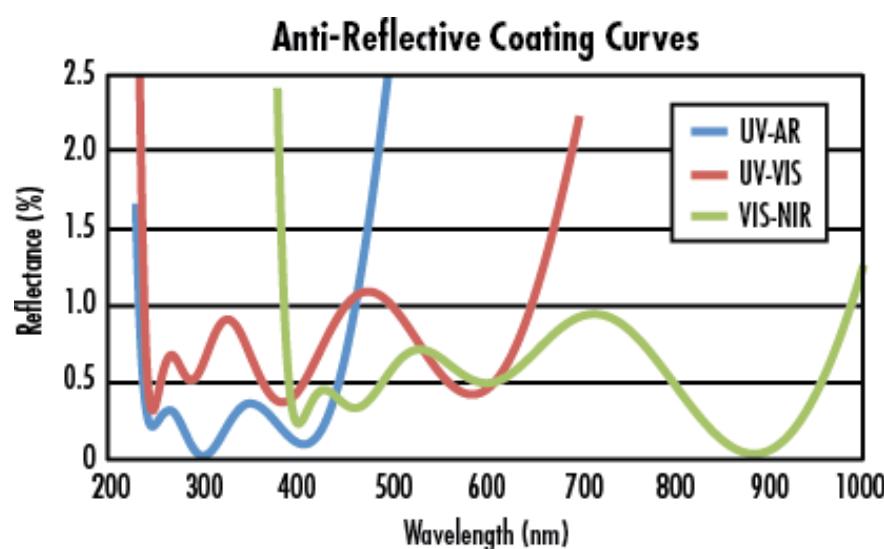
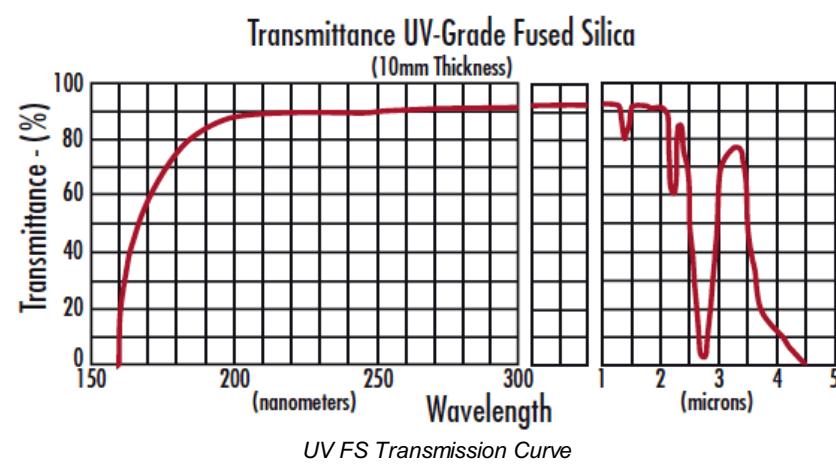
PRODUCT DETAILS

- Available Uncoated or with Broadband Anti-Reflection Coatings
- Ideal for Cost Sensitive Broadband Applications
- Circular and Square Sizes from 5mm to 100mm
- A14 or A10 UV Fused Silica Windows Also Available**

TECHSPEC® 1λ UV Fused Silica Windows are precision manufactured using UV-grade synthetic fused silica. In addition to superior transmission, the synthetic fused silica of these optical windows exhibits higher thermal properties, exceptional purity, and excellent environmental durability for demanding applications. The windows are ideal for cost-sensitive broadband applications and are available uncoated or with broadband anti-reflection coatings. TECHSPEC® 1λ UV Fused Silica Windows have circular and square sizes ranging from 5mm to 100mm. **A14 or A10 UV Fused Silica Windows** are also available.

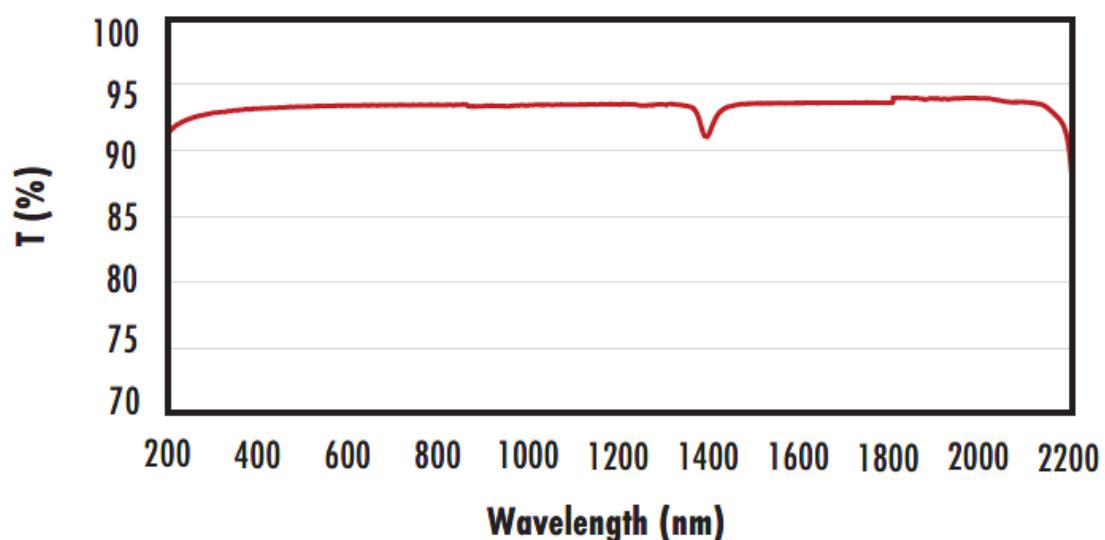
Note: New additions to this product family may be specified with a transmitted wavefront distortion (TWD) specification instead of a surface flatness. For more information on the difference between these two specifications, see our application note on [Understanding Optical Windows](#).

TECHNICAL INFORMATION



FUSED SILICA

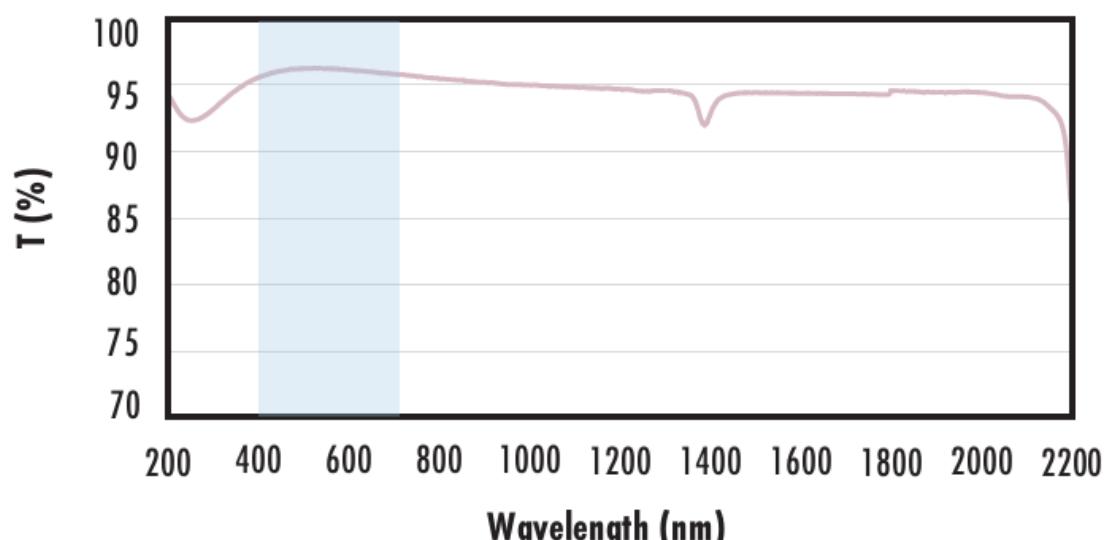
Uncoated Fused Silica Typical Transmission



Typical transmission of a 3mm thick, uncoated fused silica window across the UV- NIR spectra.

[Click Here to Download Data](#)

Fused Silica with MgF_2 Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with MgF_2 (400-700nm) coating at 0° AOI.

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

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

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

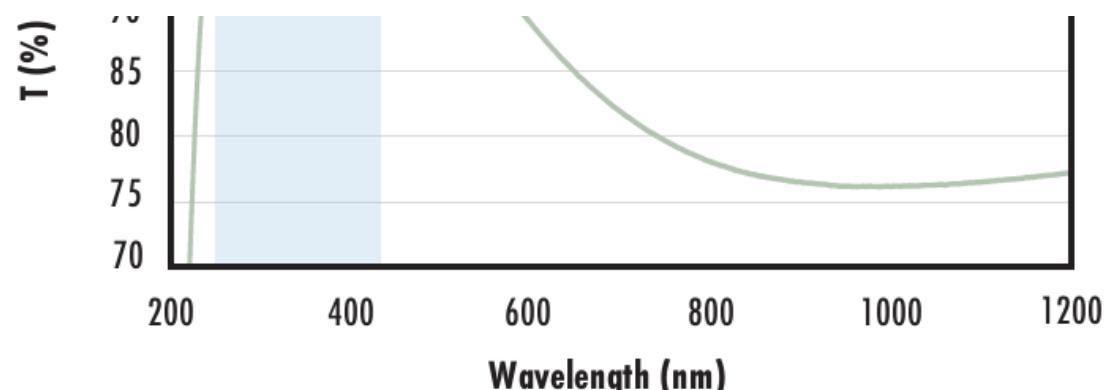
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Fused Silica with UV-AR Coating Typical Transmission



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

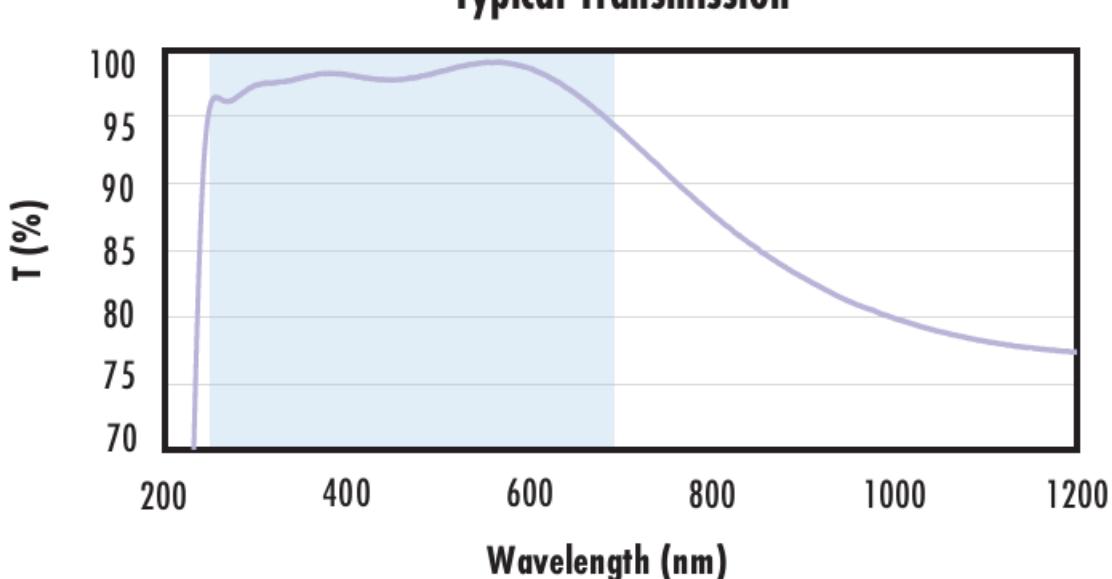
The blue shaded region indicates the coating design wavelength range, with the following specification:



$R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$
 $R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$
 $R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$

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

[Click Here to Download Data](#)



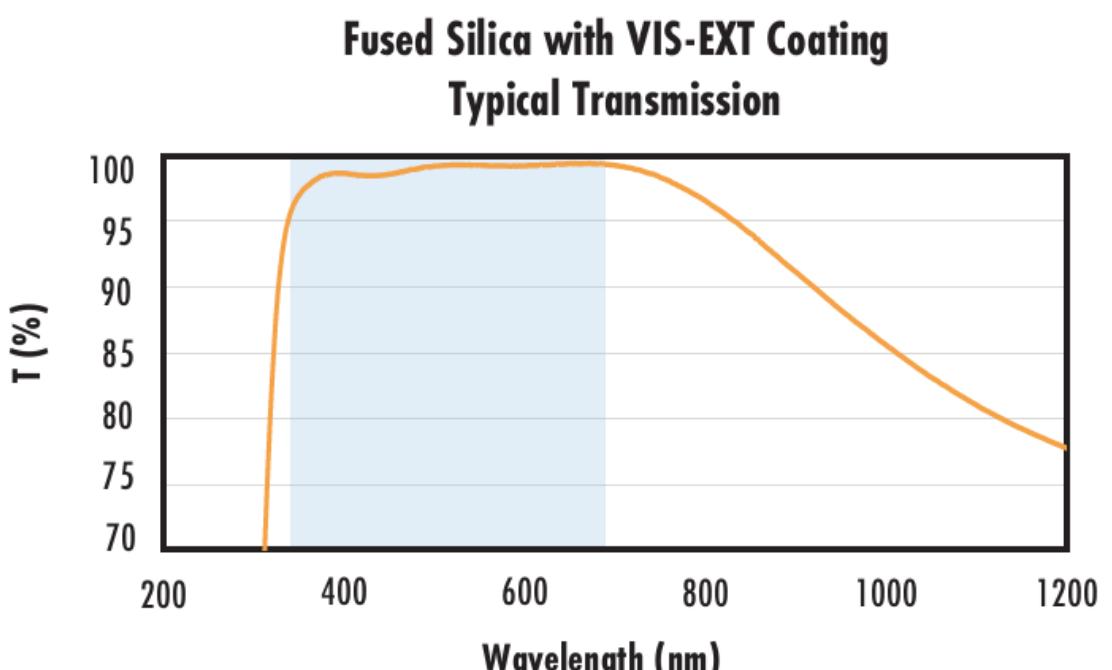
Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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](#)



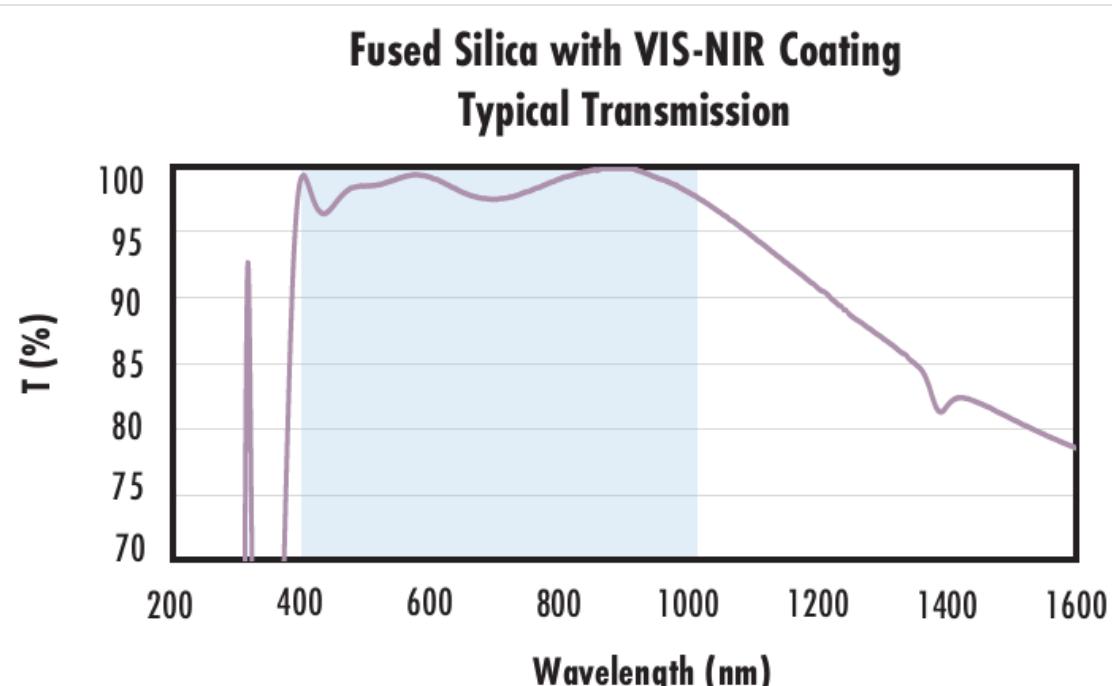
Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

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](#)



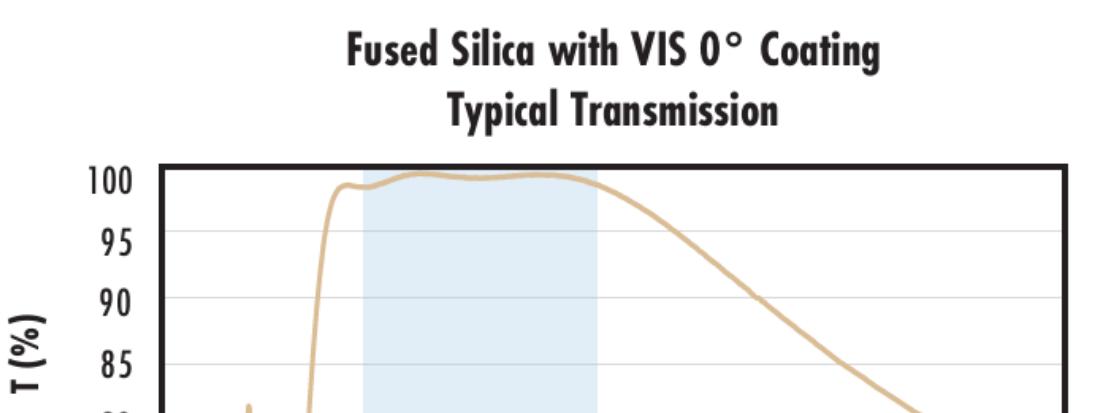
Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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.

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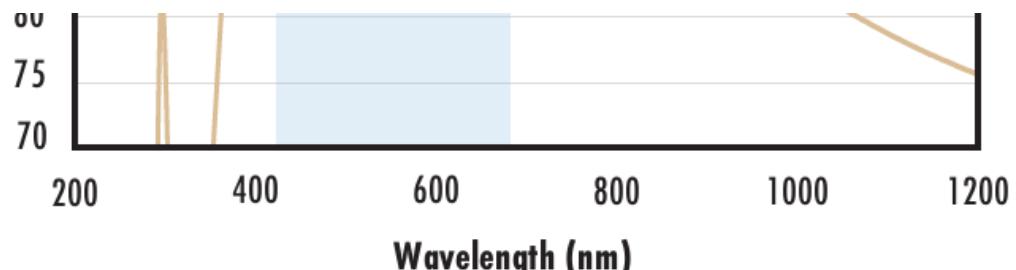


Typical transmission of a 3mm thick fused silica window with VIS (425-675nm) coating at 0° AOI.

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

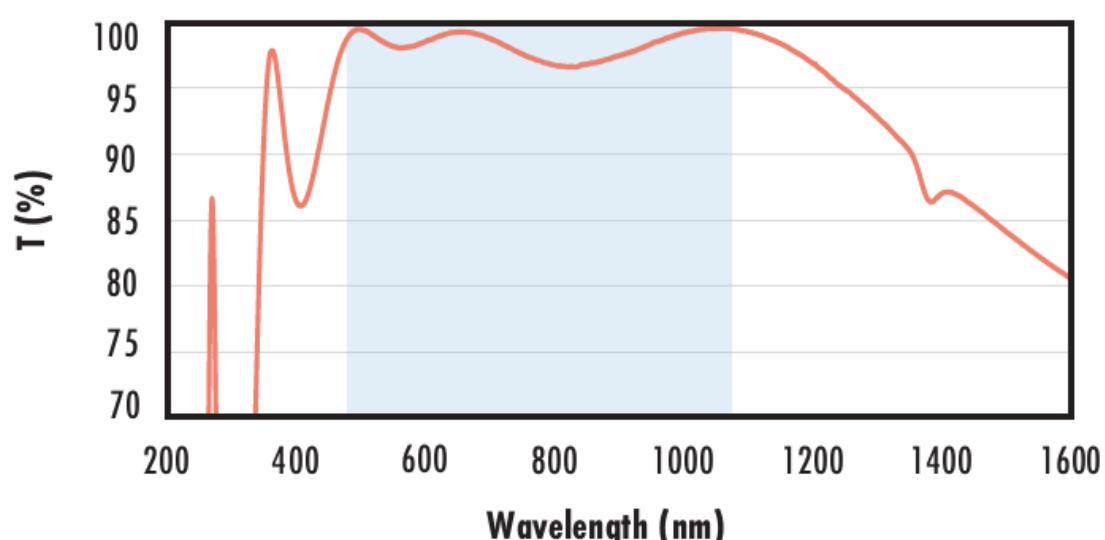
$R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$

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



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.

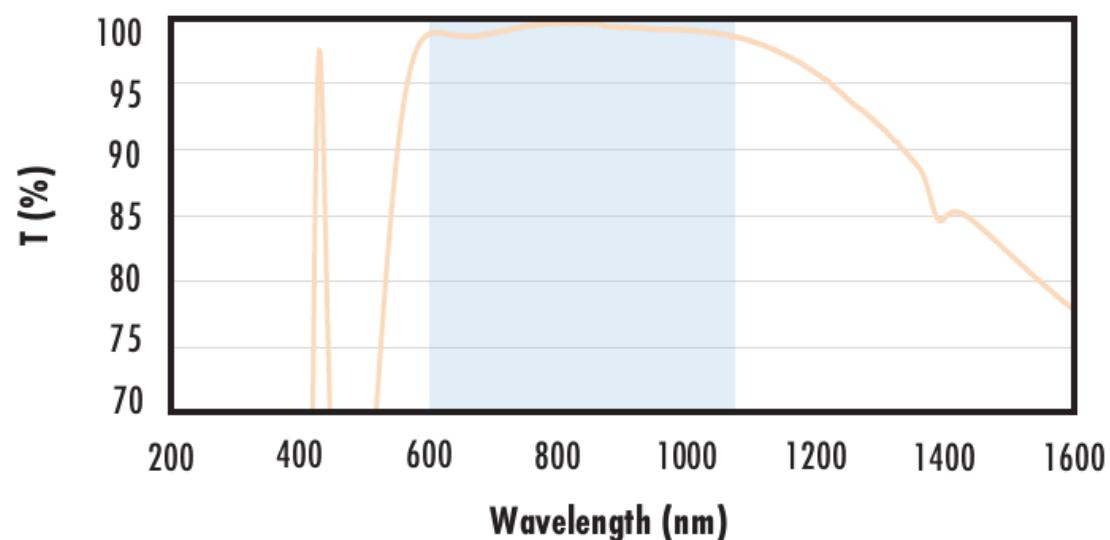
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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.

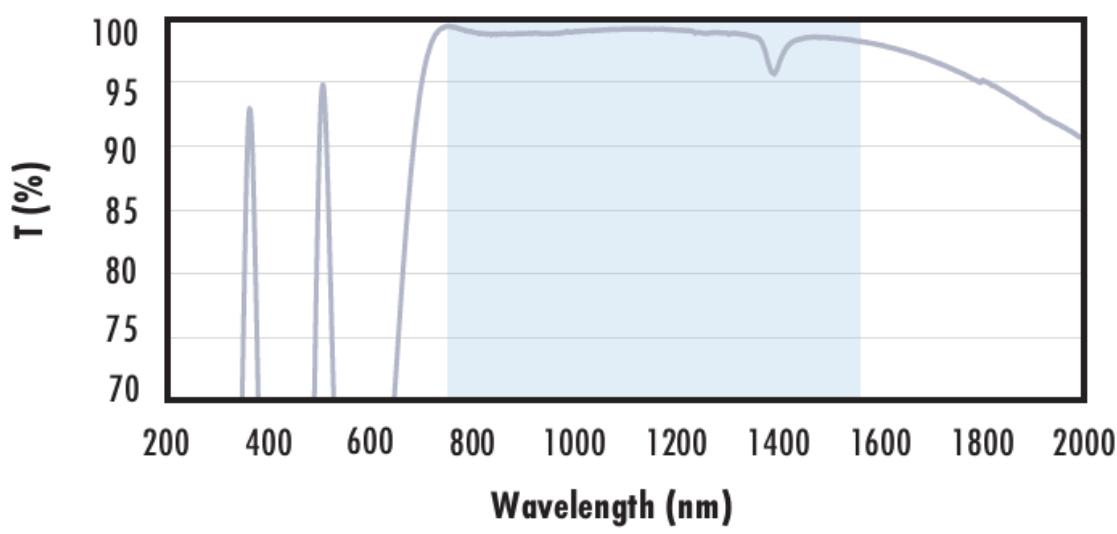
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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](#).

COMPATIBLE MOUNTS
