

TECHSPEC® 50.8mm Dia. 5mm Thick Uncoated, 1λ Fused Silica Window



TECHSPEC® 1λ UV Fused Silica Windows

Stock #25-251 **5 In Stock**

1 MRP ₹13,317

Price inclusive of all taxes

ADD TO CART

Volume Pricing	
Qty 1-5	₹13,317 each
Qty 6-25	₹10,594 each
Qty 26-49	₹9,989 each
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General

Protective Window **Type:**

Physical & Mechanical Properties

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

Diameter (mm):

50.80 +0.00/-0.20

5.00 ±0.38 **Thickness (mm):**

<5 **Parallelism (arcmin):**

Protective as needed **Bevel:**

90 **Clear Aperture (%):**

Fine Ground **Edges:**

0.16 **Poisson's Ratio:**

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

522.00 **Knoop Hardness (kg/mm²):**

Optical Properties

Uncoated **Coating:**

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

1.458 **Index of Refraction (n_d):**

60-40 **Surface Quality:**

1λ **Transmitted Wavefront, P-V:**

67.8 **Abbe Number (v_d):**

200 - 2200 **Wavelength Range (nm):**

Material Properties

2.20 **Density (g/cm³):**

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

[View](#) **Certificate of Conformance:**

Vietnam **Country of Origin:**

Imported By:

Edmund Optics India Private Limited
267, Greystone Building, Second Floor,
6th Cross Rd, Binnamangala,
Stage 1, Indiranagar, Bengaluru,
Karnataka, India 560038
Phone: +91- 80-6845 0000

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

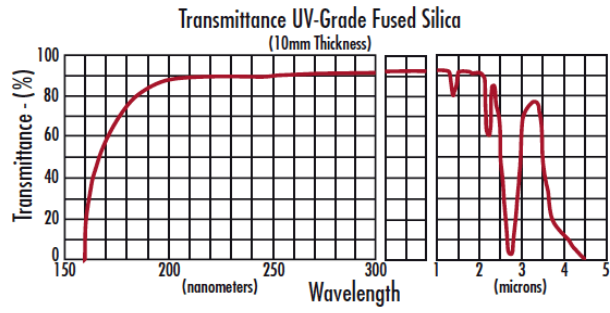
- Available Uncoated or with Broadband Anti-Reflection Coatings
- Ideal for Cost Sensitive Broadband Applications
- Circular and Square Sizes from 5mm to 100mm
- **N/4** or **N/10** UV Fused Silica Windows Also Available

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.

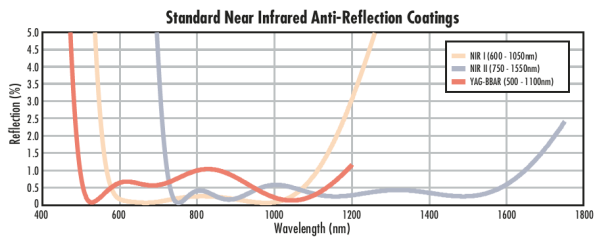
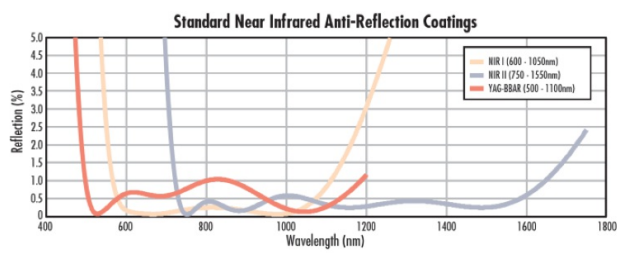
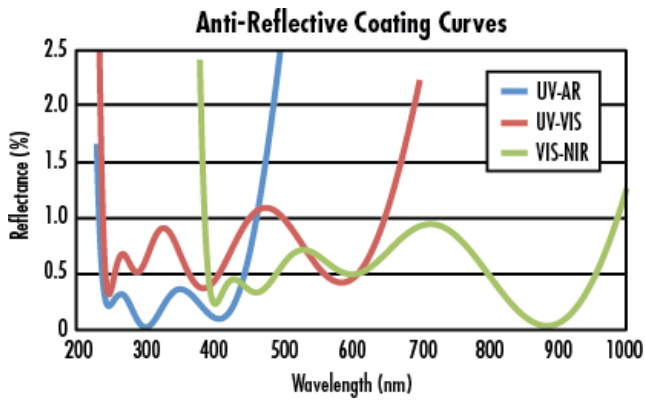
TECHSPEC® 1λ UV Fused Silica Windows have circular and square sizes ranging from 5mm to 100mm. **N/4** or **N/10** UV Fused Silica Windows are also available.

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

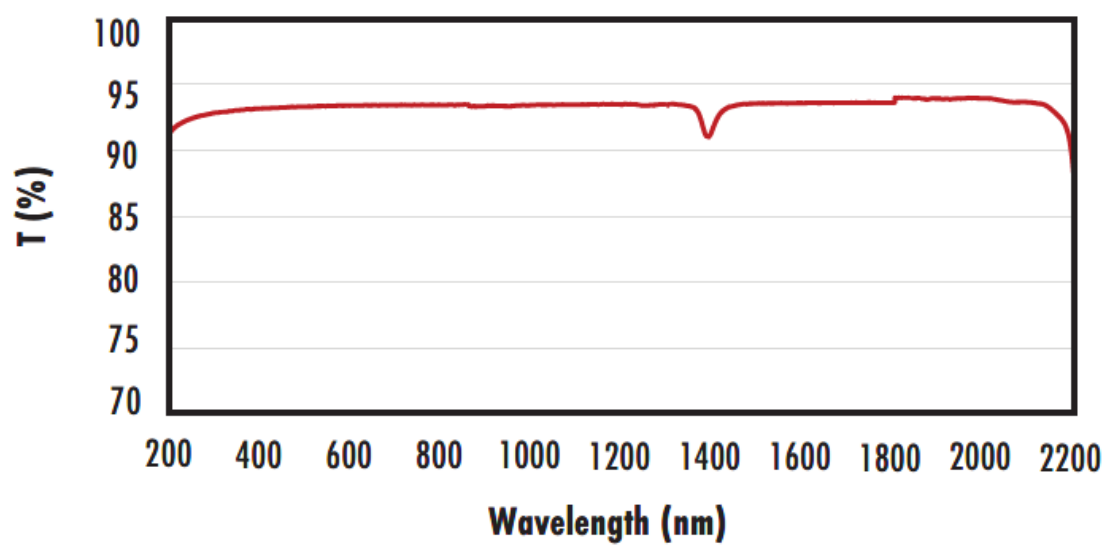


UV FS Transmission Curve



FUSED SILICA

Uncoated Fused Silica Typical Transmission



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

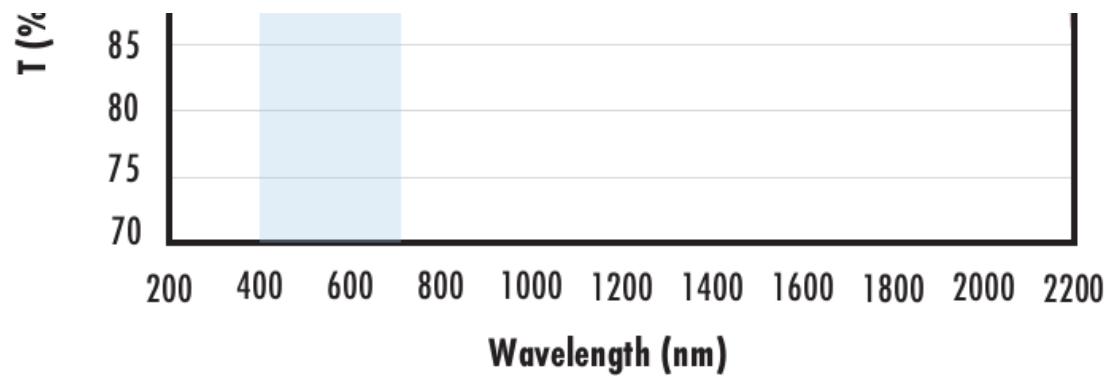
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Fused Silica with MgF₂ Coating Typical Transmission



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:



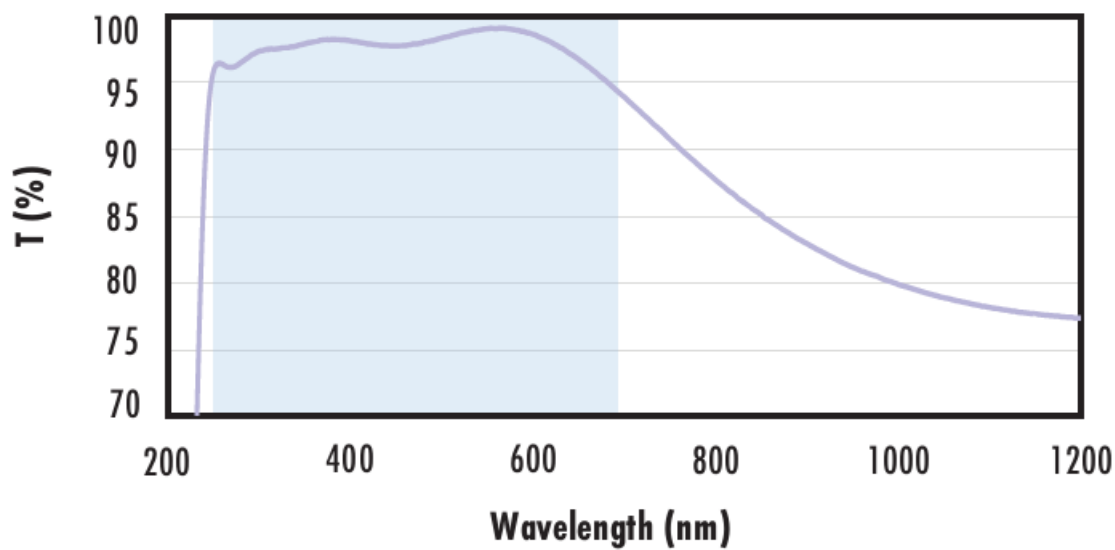
$R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}$
 Data outside this range is not guaranteed and is for reference only.
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Fused Silica with UV-AR Coating Typical Transmission



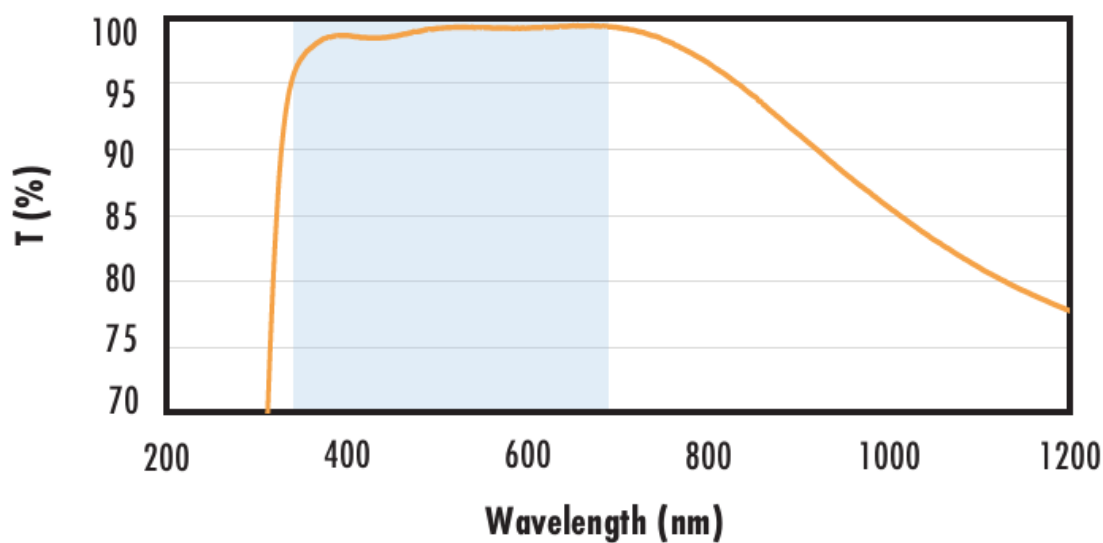
Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$
 $R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$
 $R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$
 Data outside this range is not guaranteed and is for reference only.
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Fused Silica with UV-VIS Coating Typical Transmission



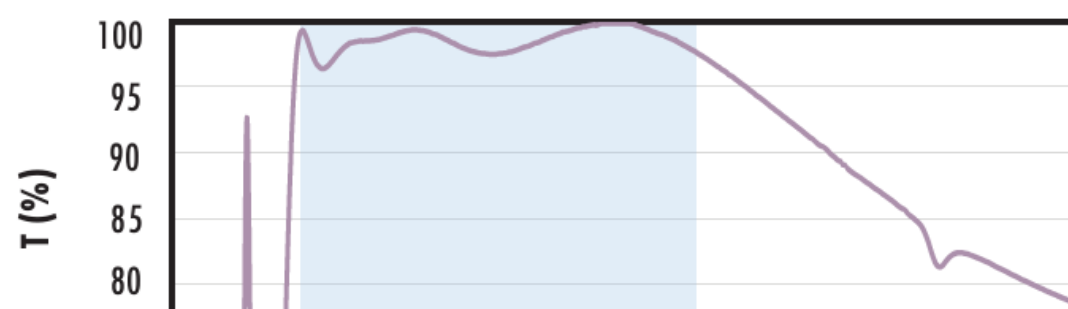
Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$
 $R_{avg} \leq 1.5\% @ 250 - 700\text{nm}$
 Data outside this range is not guaranteed and is for reference only.
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Fused Silica with VIS-EXT Coating Typical Transmission

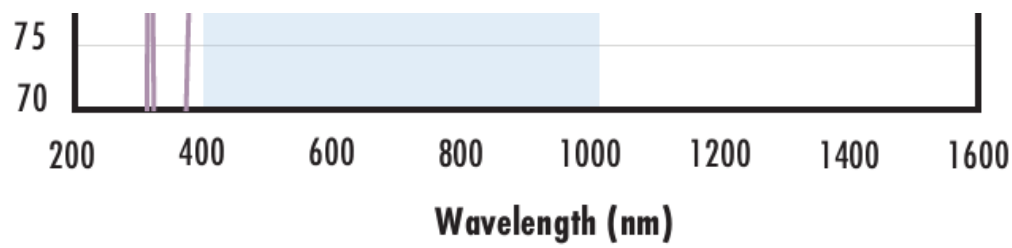


Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$
 Data outside this range is not guaranteed and is for reference only.
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Fused Silica with VIS-NIR Coating Typical Transmission

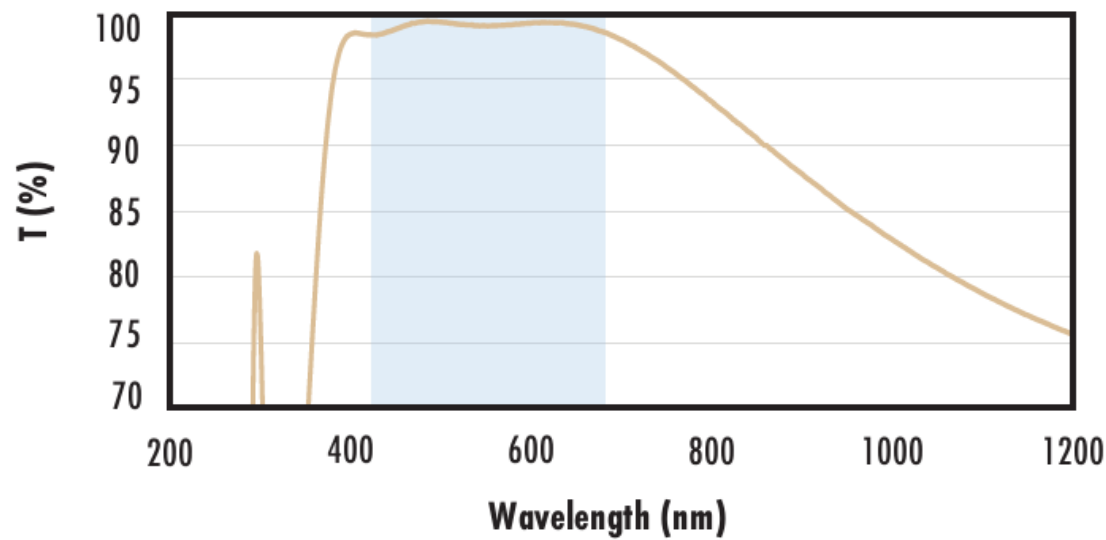


Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{abs} \leq 0.25\% @ 880\text{nm}$
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$
 Data outside this range is not guaranteed and is for reference



only.
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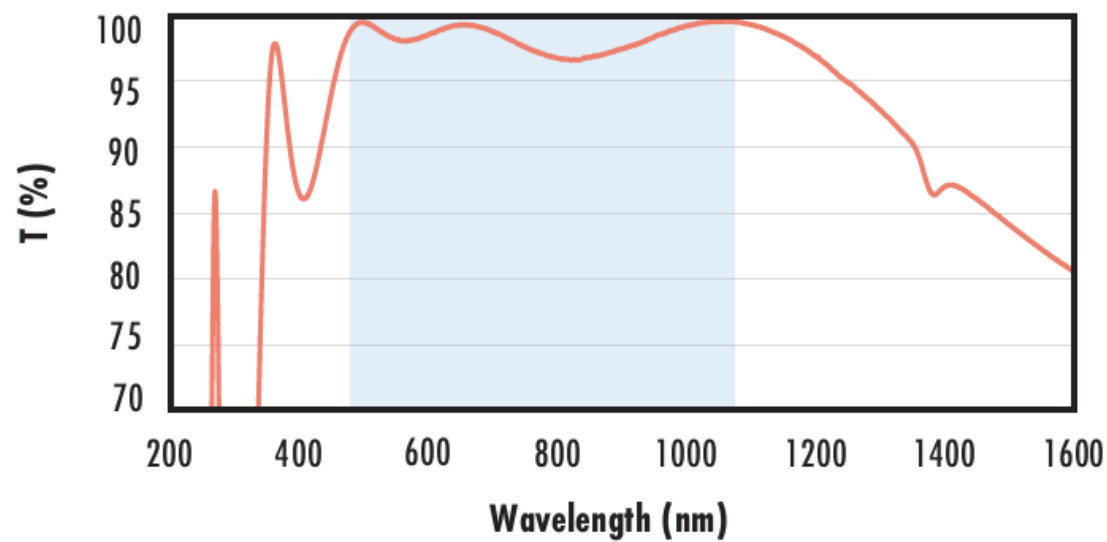
Fused Silica with VIS 0° Coating Typical Transmission



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



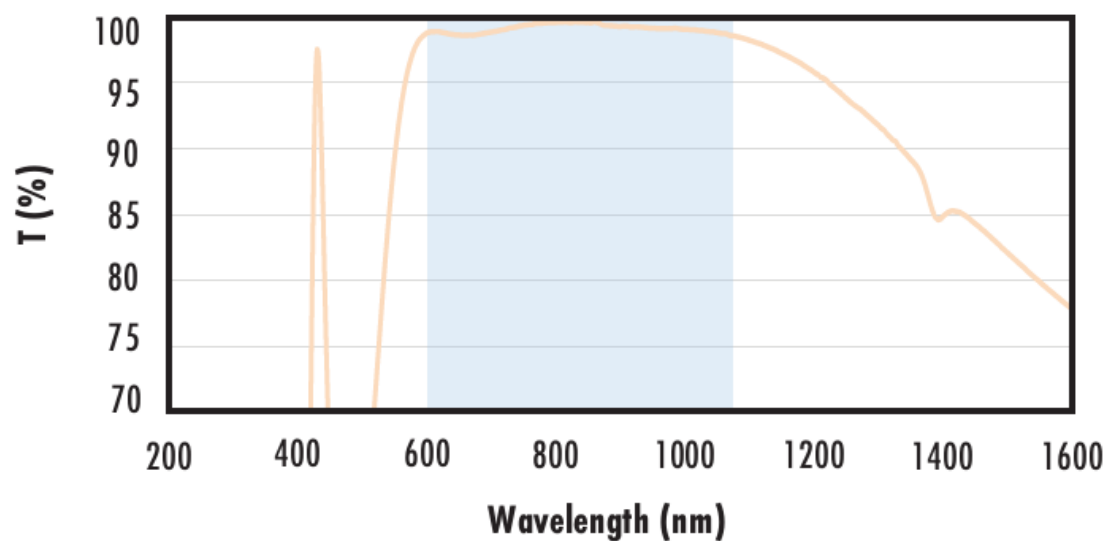
Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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.

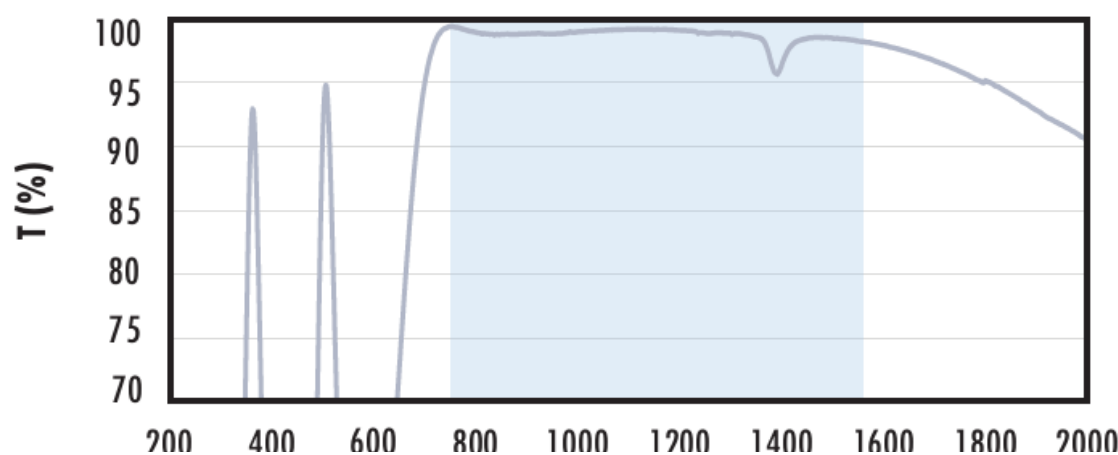
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

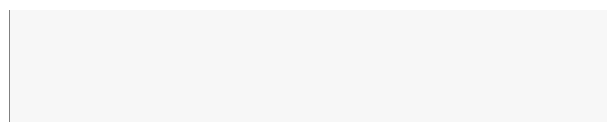
$R_{abs} \leq 1.5\% @ 750 - 800nm$
 $R_{abs} \leq 1.0\% @ 800 - 1550nm$
 $R_{avg} \leq 0.7\% @ 750 - 1550nm$

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

[Click Here to Download Data](#)

200 100 000 500 1000 1200 1400 1600 1800 2000

Wavelength (nm)



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