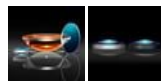


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TECHSPEC® 12mm Dia. x 30mm FL, MgF₂ Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock #18-044 CLEARANCE CONTACT US

⊖ 1 ⊕ **\$\$139⁰⁰**

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General

Plano-Convex Lens **Type:**

Physical & Mechanical Properties

12.00 -0.025 **Diameter (mm):**

<1 **Centering (arcmin):**

Center Thickness CT (mm):
3.55 ±0.05

Edge Thickness ET (mm):
2.17

Clear Aperture CA (mm):
11

Bevel:
Protective as needed

Optical Properties

Effective Focal Length EFL (mm):
30.00 @ 587.6nm

Back Focal Length BFL (mm):
27.56

Coating:
MgF₂ (400-700nm)

Coating Specification:
R_{avg} ≤ 1.75% @ 400 - 700nm

Substrate:
[Fused Silica](#) (Corning 7980)

Surface Quality:
40-20

Power (P-V) @ 632.8nm:
3 Rings

Irregularity (P-V) @ 632.8nm:
0.5 Rings

Focal Length Tolerance (%):
±1

Radius R₁ (mm):
13.75

f#:
2.5

Numerical Aperture NA:
0.20

Wavelength Range (nm):
400 - 700

Damage Threshold, By Design:
10 J/cm² @ 532nm, 10ns

Regulatory Compliance

RoHS 2015:
[Compliant](#)

Certificate of Conformance:
[View](#)

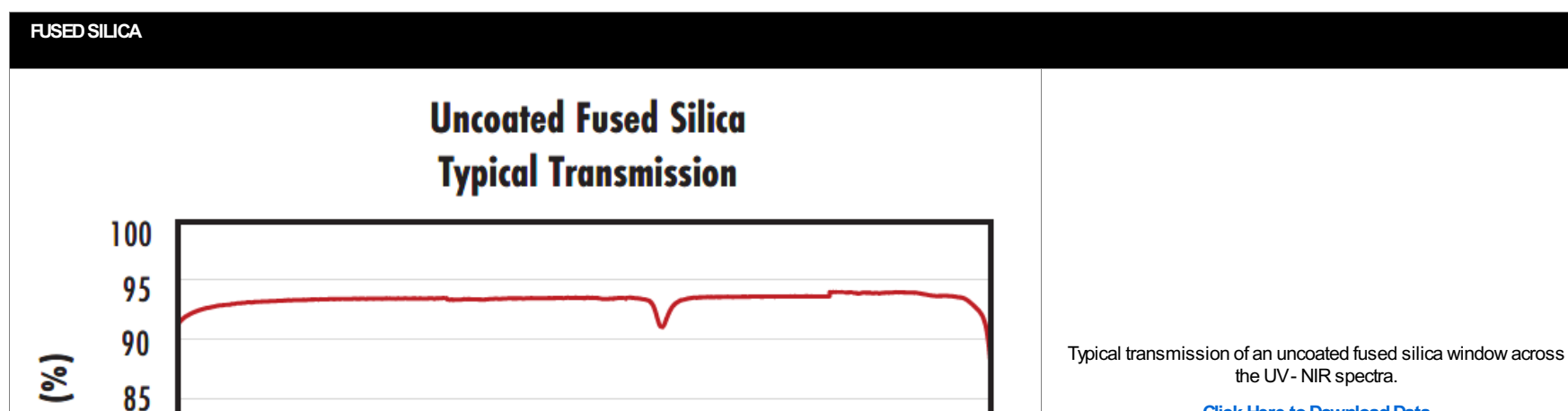
Reach 235:
[Compliant](#)

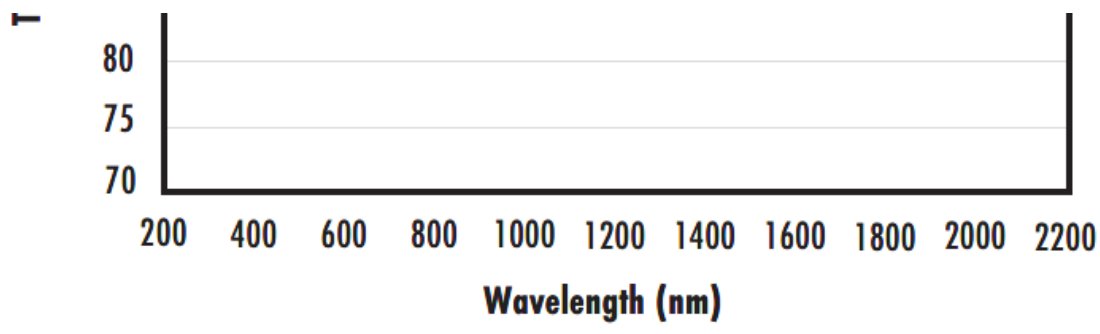
Product Details

- AR Coated to Provide <1.75% Reflection per Surface for 400 - 700nm
- Precision Fused Silica Substrate
- Various Coating Options: [Uncoated](#), [UV-AR](#), [UV-VIS](#), [VIS-EXT](#), [VIS-NIR](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses MgF₂ Coated feature precision specifications and a [variety of coating options](#) on a broadband substrate. Fused Silica is commonly used in applications from the Ultraviolet (UV) through the Near-Infrared (NIR). Its low index of refraction, low coefficient of thermal expansion, and low inclusion content make it ideal for laser applications and harsh environmental conditions. TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses MgF₂ Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are AR coated with MgF₂ to increase performance in the VIS range.

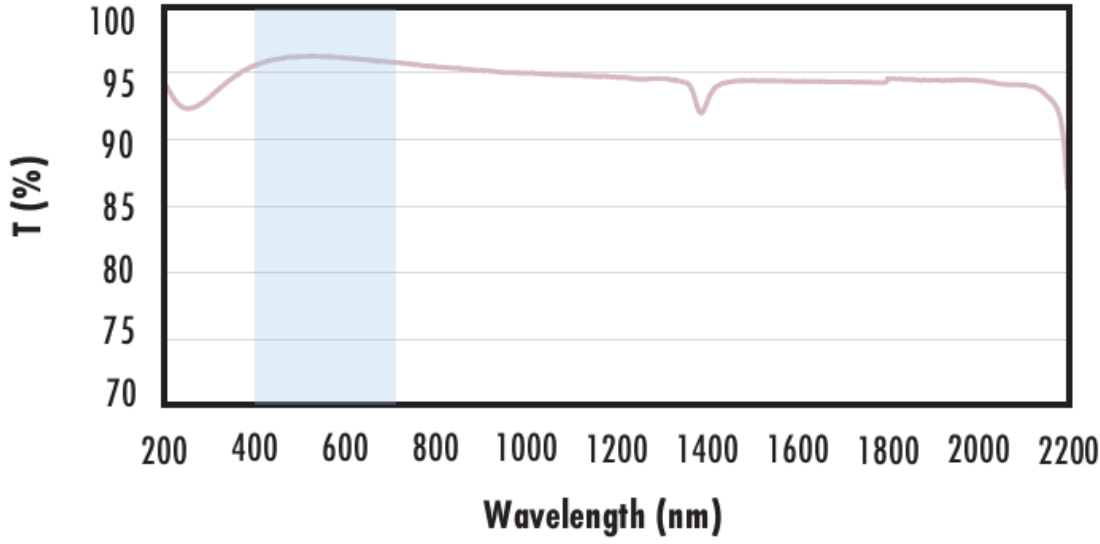
Technical Information





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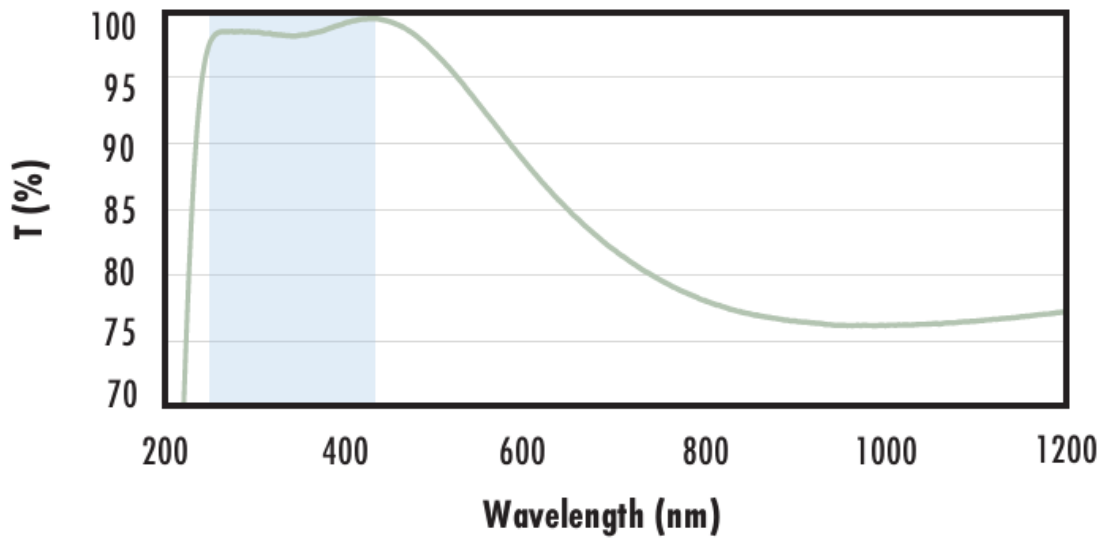
Fused Silica with MgF₂ Coating Typical Transmission



Typical transmission of a 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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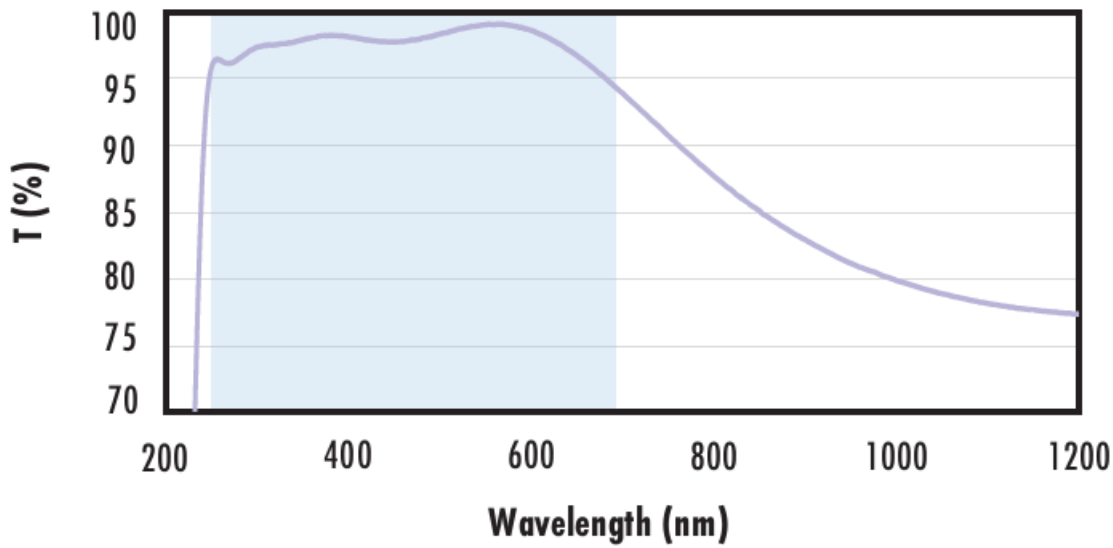
Fused Silica with UV-AR Coating Typical Transmission



Typical transmission of a 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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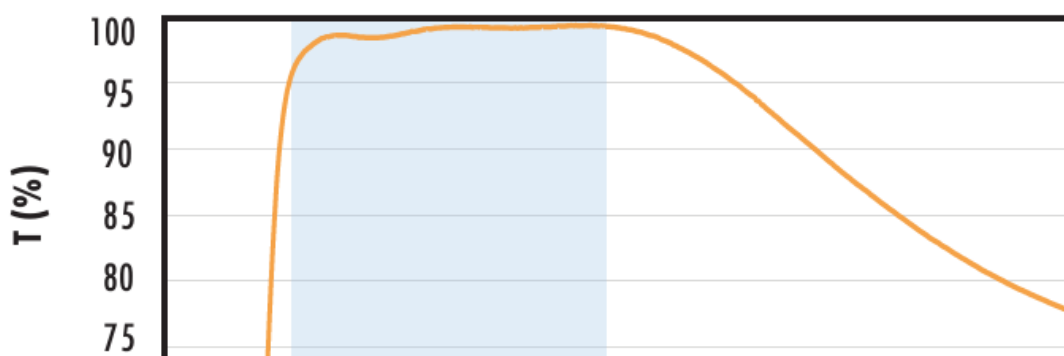
Fused Silica with UV-VIS Coating Typical Transmission



Typical transmission of a 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.

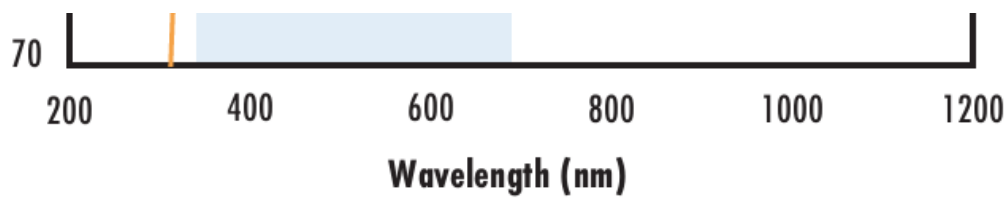
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Fused Silica with VIS-EXT Coating Typical Transmission

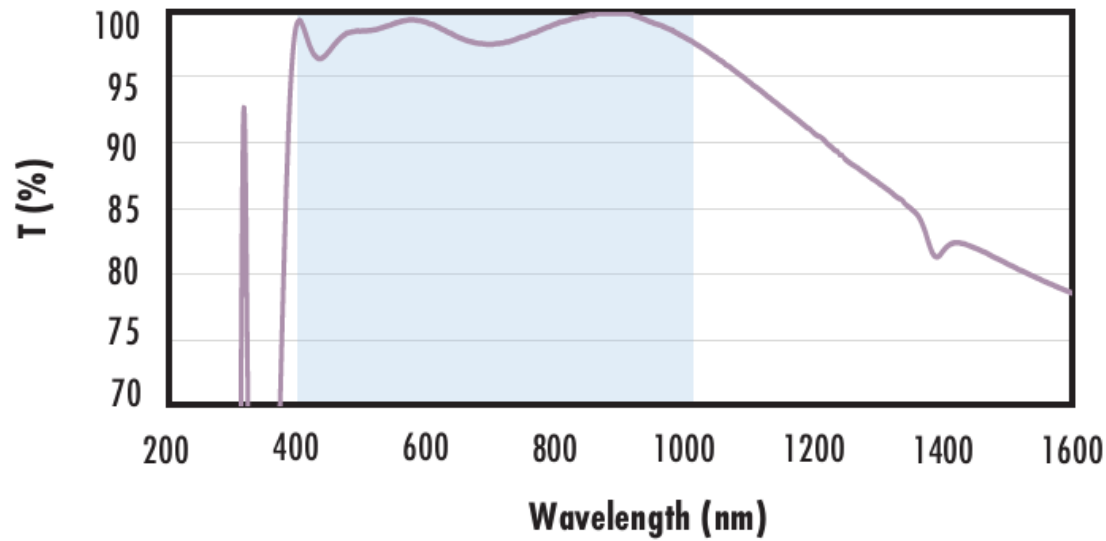


Typical transmission of a fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.
The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$
Data outside this range is not guaranteed and is for reference only.

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**Fused Silica with VIS-NIR Coating
Typical Transmission**



Typical transmission of a 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:

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

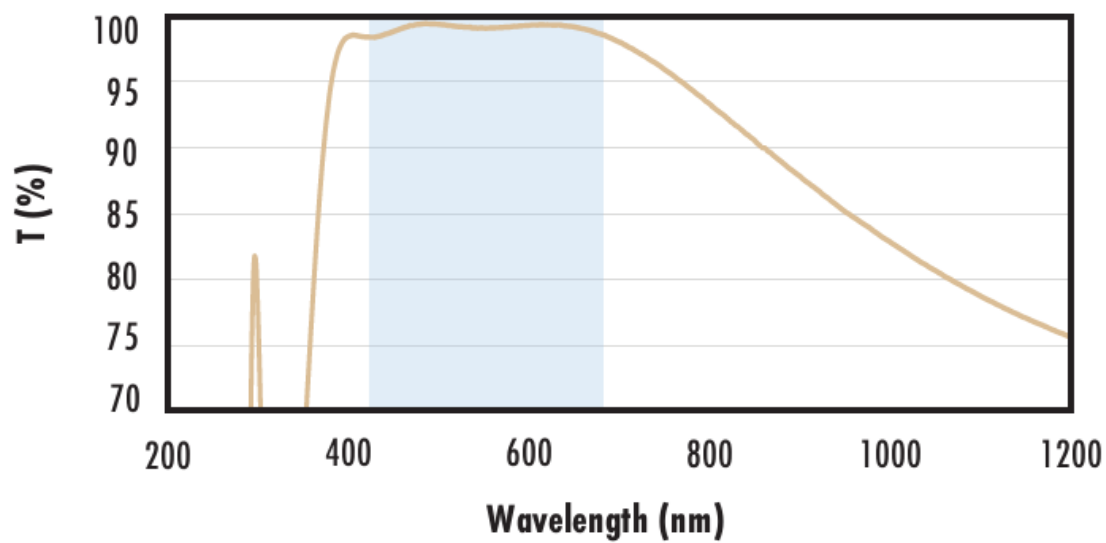
$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

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

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 fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

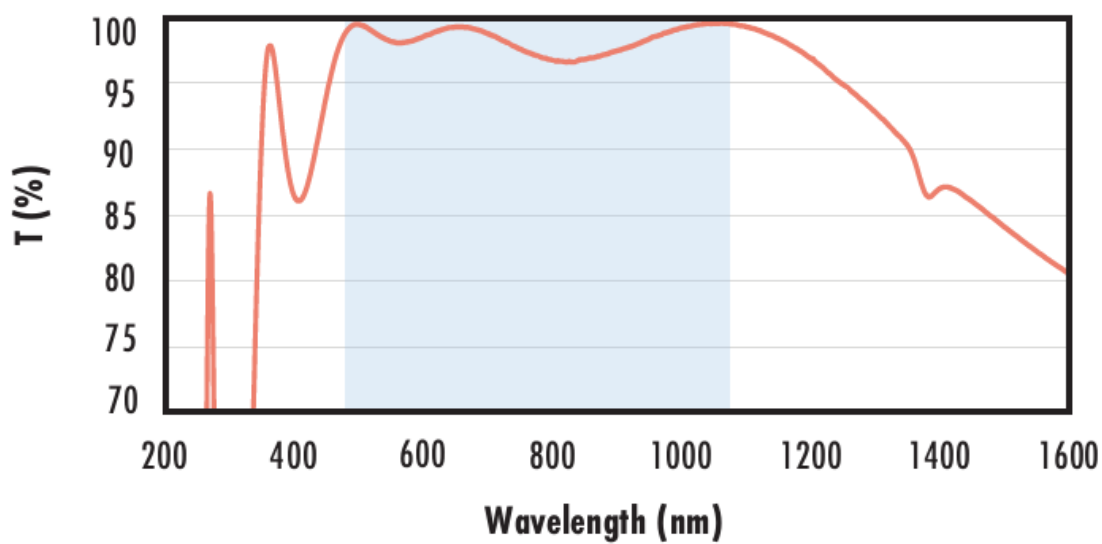
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 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:

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

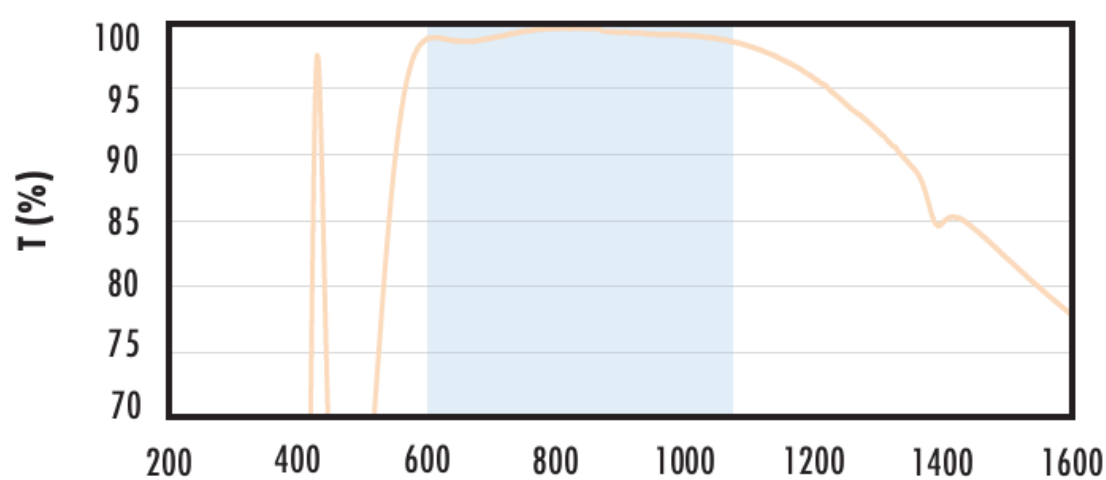
$$R_{abs} \leq 0.25\% @ 1064\text{nm}$$

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

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

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



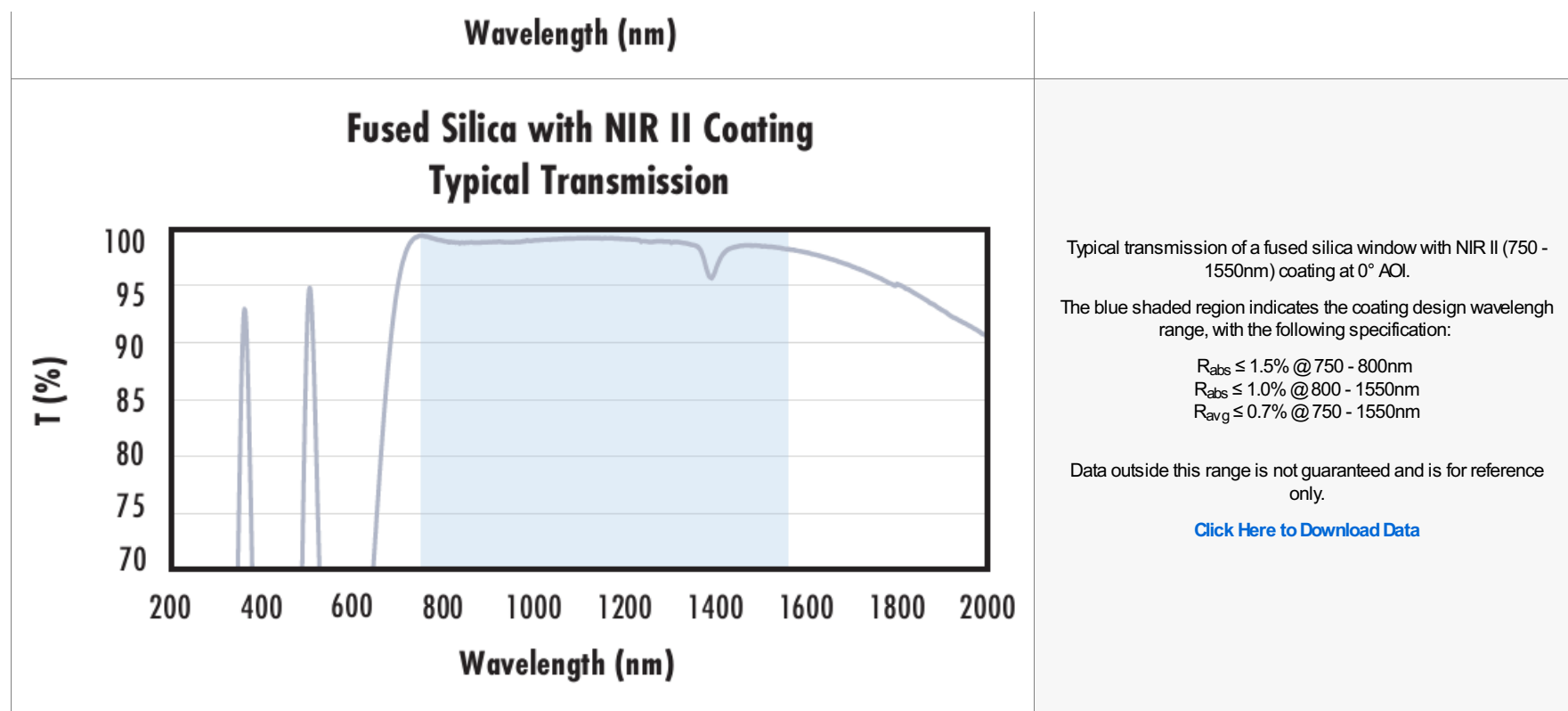
Typical transmission of a fused silica window with NIR I (600-1050nm) coating at 0° AOI.

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

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

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

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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

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