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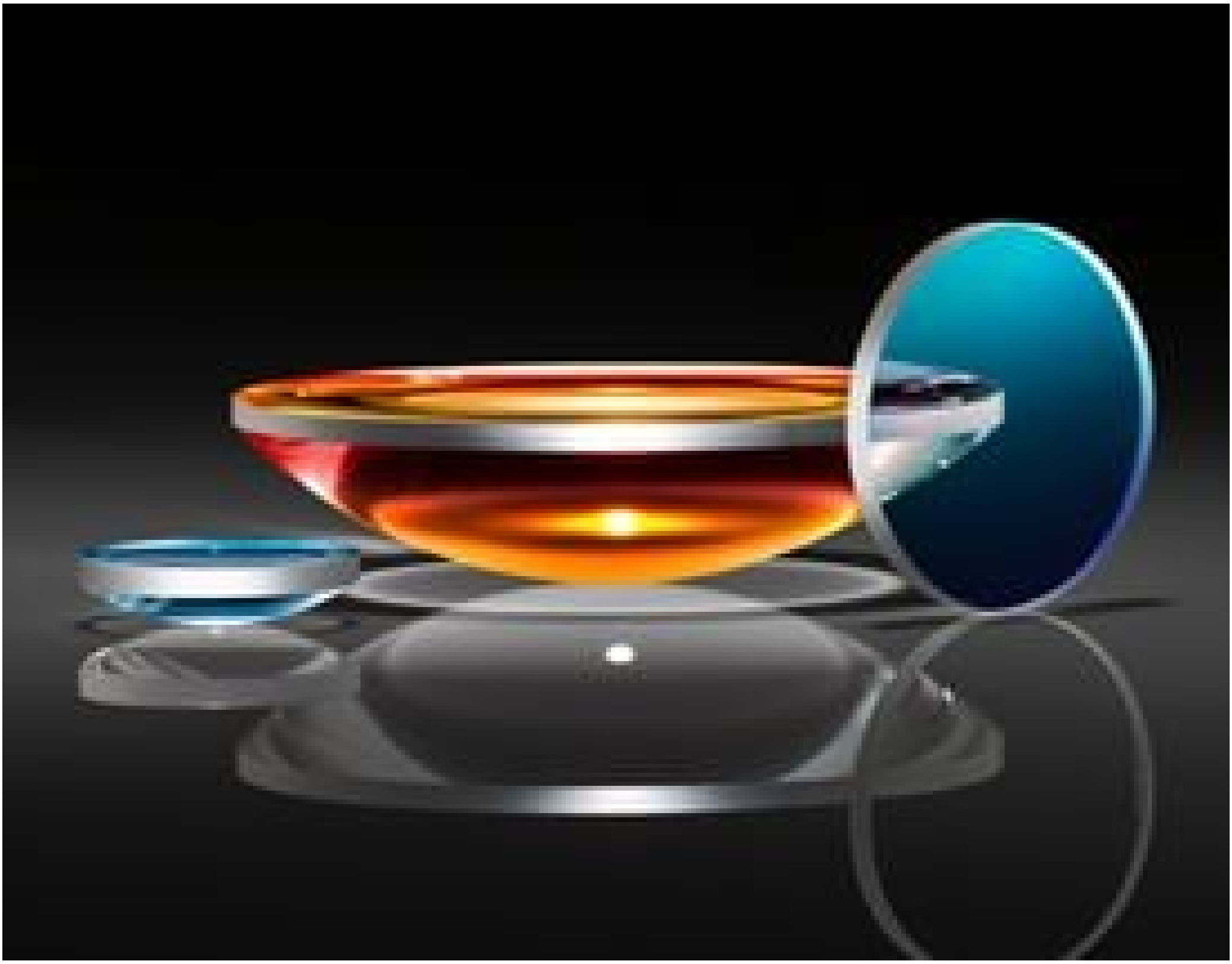
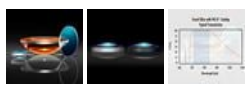
# TECHSPEC® 30mm Dia. x 120mm FL VIS 0° Coated, UV Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



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## General

**Type:**

Plano-Convex Lens

## Physical & Mechanical Properties

**Diameter (mm):**

30.00 +0.0/-0.025

**Centering (arcmin):**
<1

**Center Thickness CT (mm):**
5.00 ±0.10

**Edge Thickness ET (mm):**
2.92

**Clear Aperture CA (mm):**
29

**Bevel:**
Protective as needed

## Optical Properties

**Effective Focal Length EFL (mm):**
120.00 @ 587.6nm

**Back Focal Length BFL (mm):**
116.57

**Coating:**
VIS 0° (425-675nm)

**Coating Specification:**
$R_{avg}$ ≤0.4% @ 425 - 675nm

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

**Surface Quality:**
40-20

**Power (P-V) @ 632.8nm:**
1.5λ

**Irregularity (P-V) @ 632.8nm:**
λ/4

**Focal Length Tolerance (%):**
±1

**Radius $R_1$ (mm):**
55.02

**f/#:**
4

**Numerical Aperture NA:**
0.13

**Wavelength Range (nm):**
425 - 675

**Damage Threshold, Reference:**
5 J/cm$^2$ @ 532nm, 10ns

## Regulatory Compliance

**RoHS 2015:**
Compliant

**Certificate of Conformance:**
View

**Reach 235:**
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
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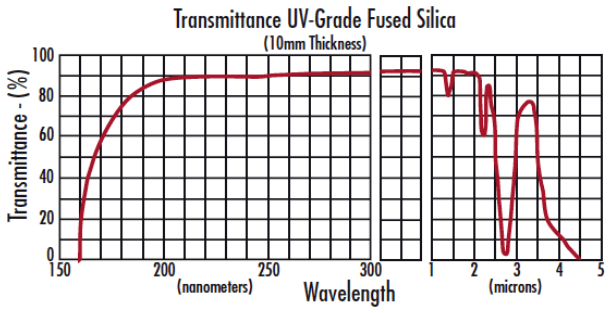
Learn more about our custom manufacturing capabilities or submit an inquiry here.

# Product Details

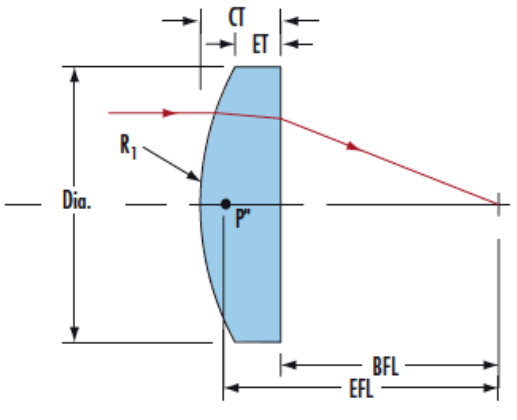
- AR Coated to Provide <0.4% Reflection per Surface for 425 - 675nm
- Precision Fused Silica Substrate
- Various Coating Options: Uncoated, $MgF_2$, UV-AR, UV-VIS, VIS-EXT, VIS-NIR, YAG-BBAR, NIR I, and NIR II

TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses VIS 0° 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 VIS 0° Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are VIS 0° coated to increase their coating performance in the visible region and are designed for 0 degrees angle of incidence.

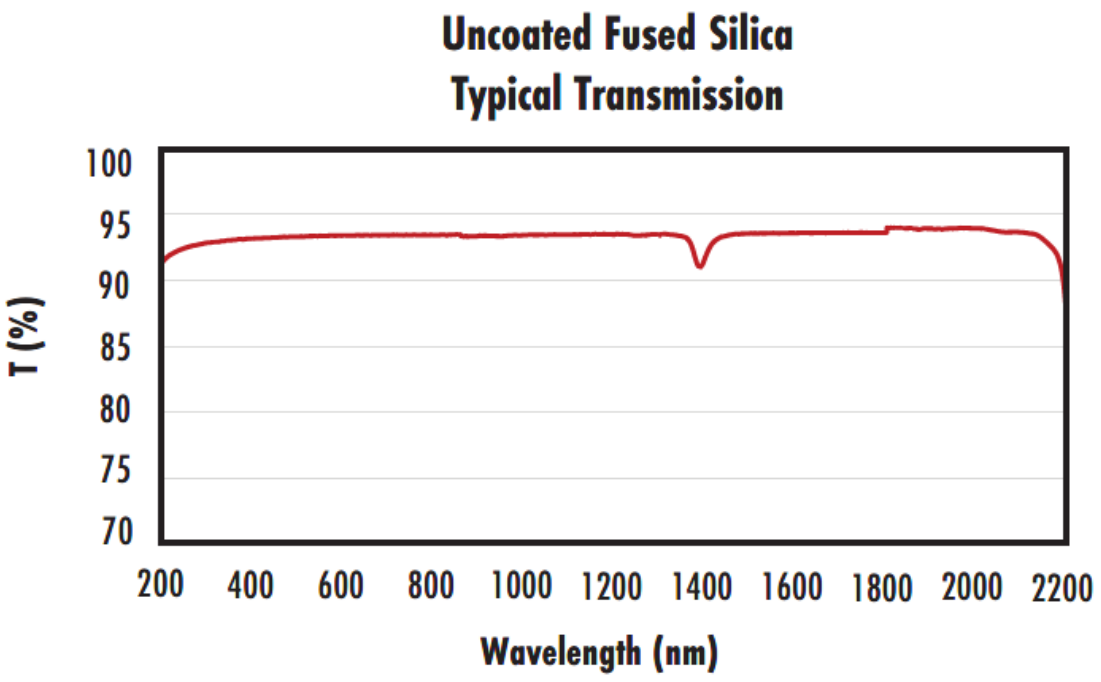
# Technical Information




*UV FS Transmission Curve*




**FUSED SILICA**




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

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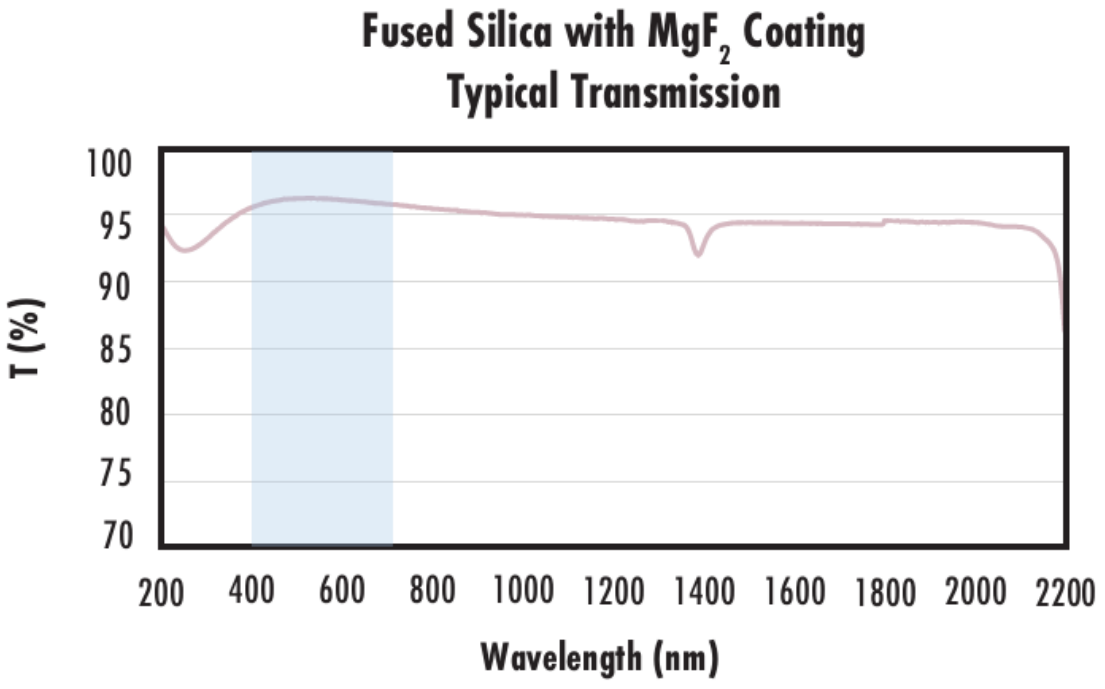


Typical transmission of a 3mm thick fused silica window with MgF2 (400-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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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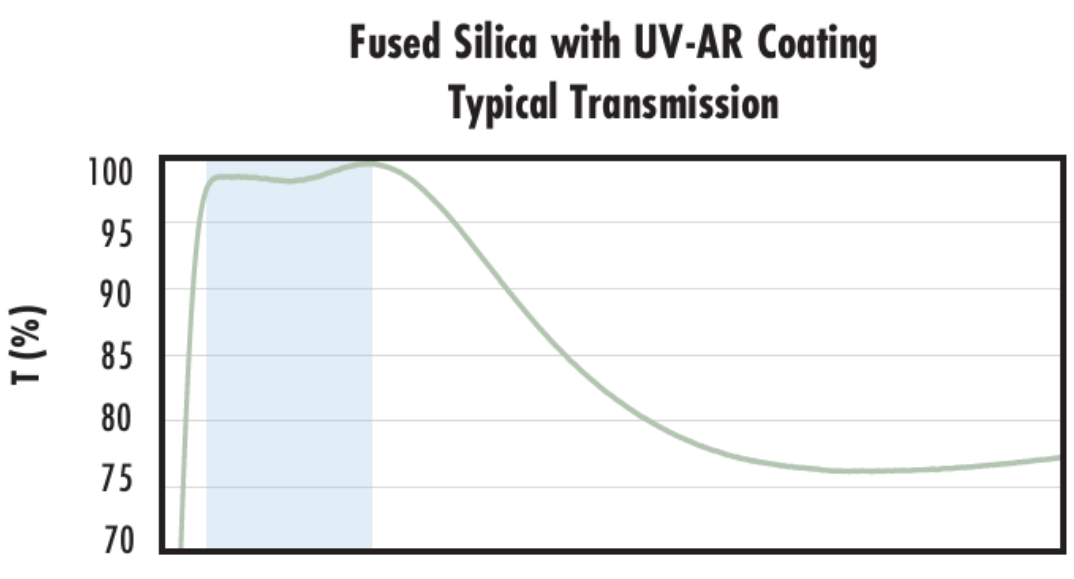


Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

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

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

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

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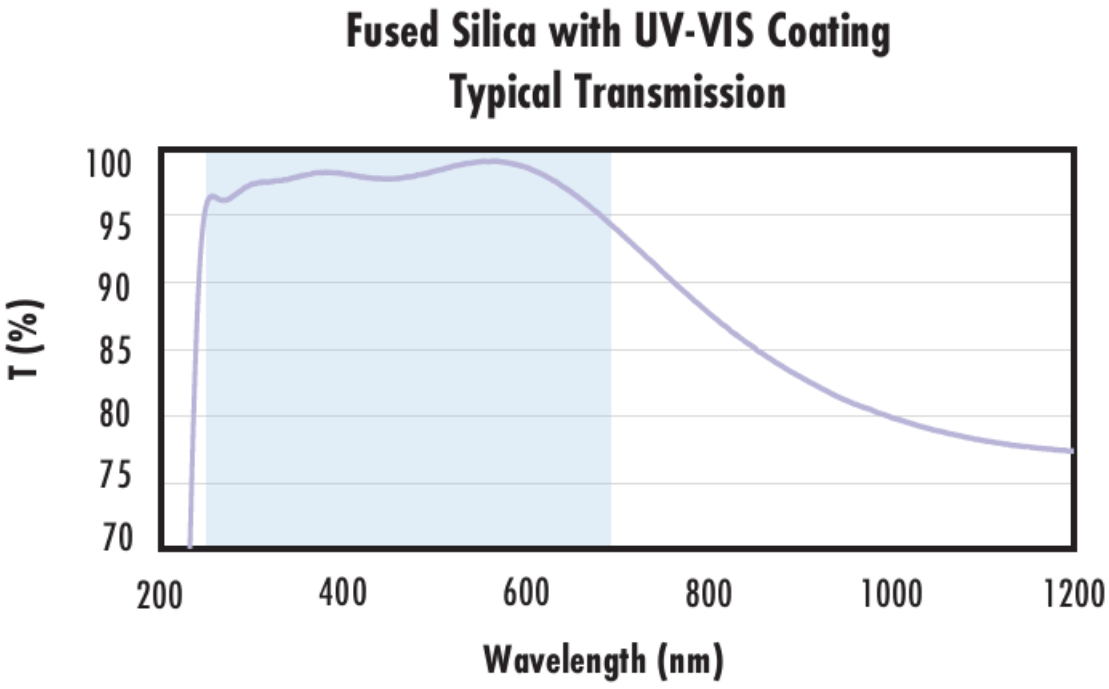


Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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

$R_{abs}$ ≤ 1.0% @ 350 - 450nm
$R_{avg}$ ≤ 1.5% @ 250 - 700nm

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

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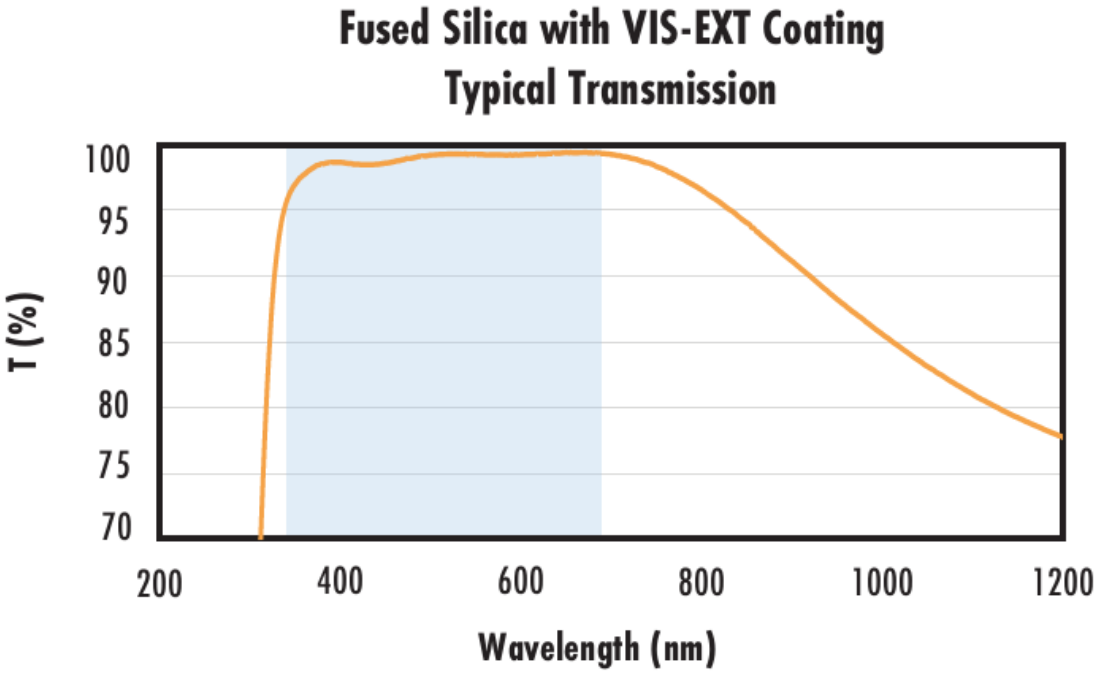


Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

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

$R_{avg}$ ≤ 0.5% @ 350 - 700nm

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

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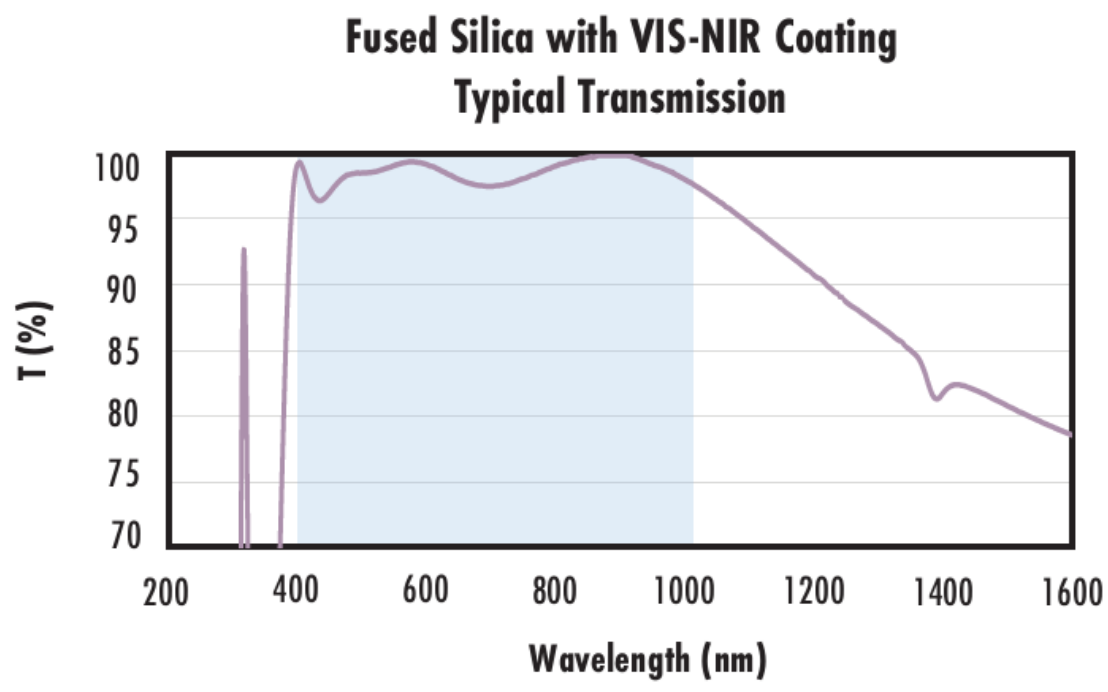


Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

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

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

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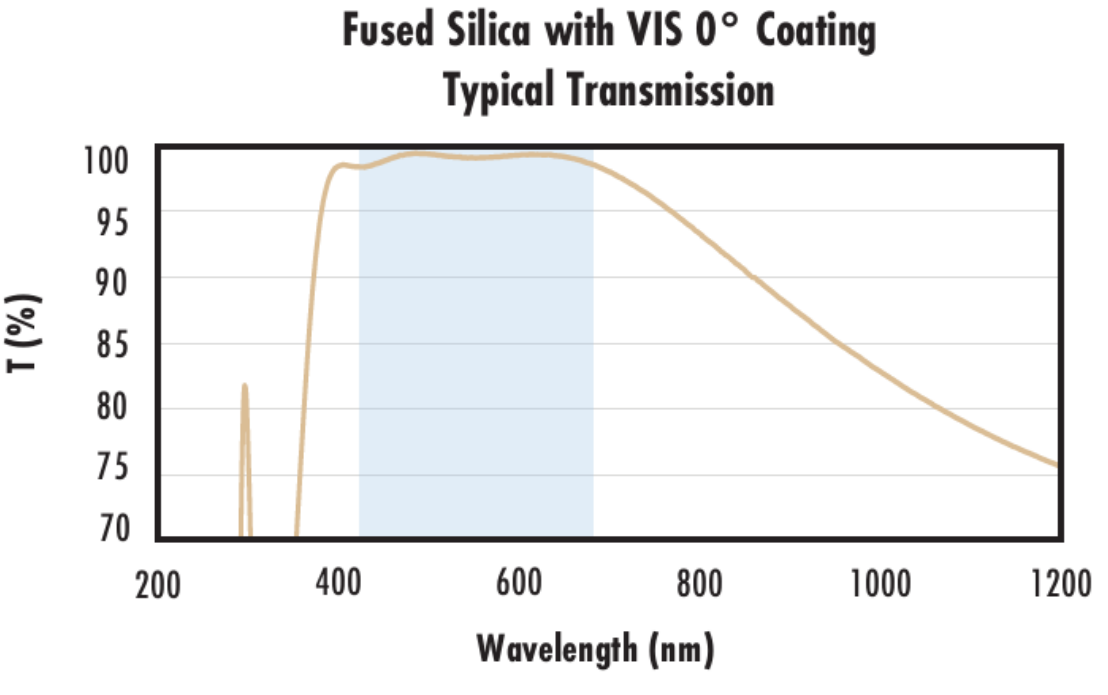


Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

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

$R_{avg}$ ≤ 0.4% @ 425 - 675nm

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

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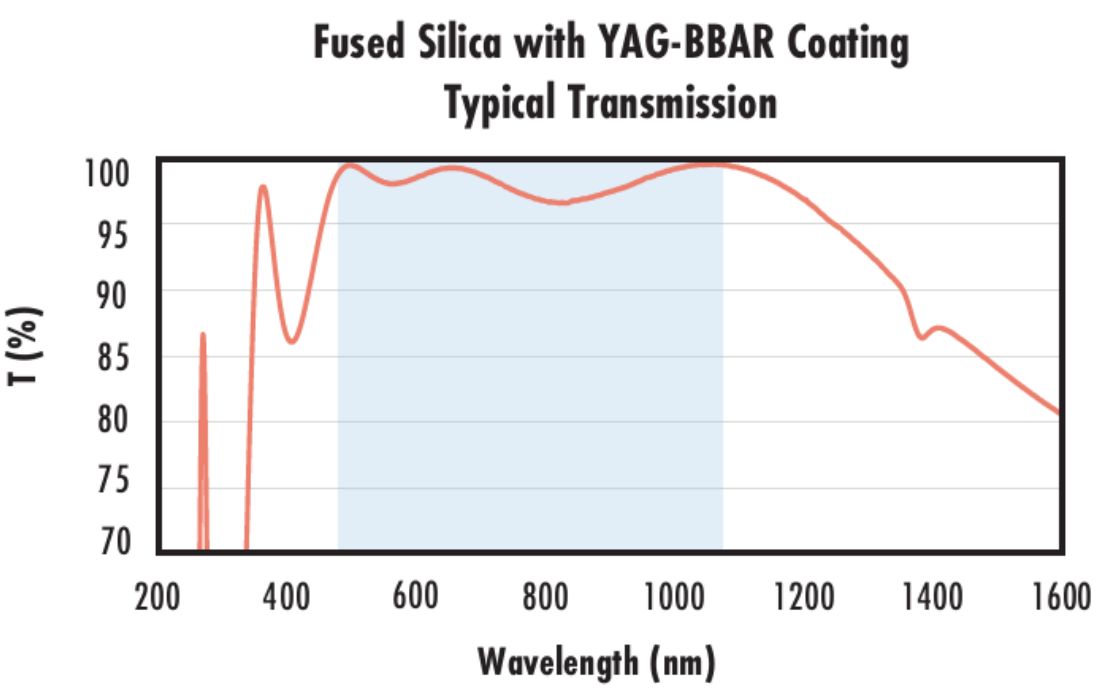


Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

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

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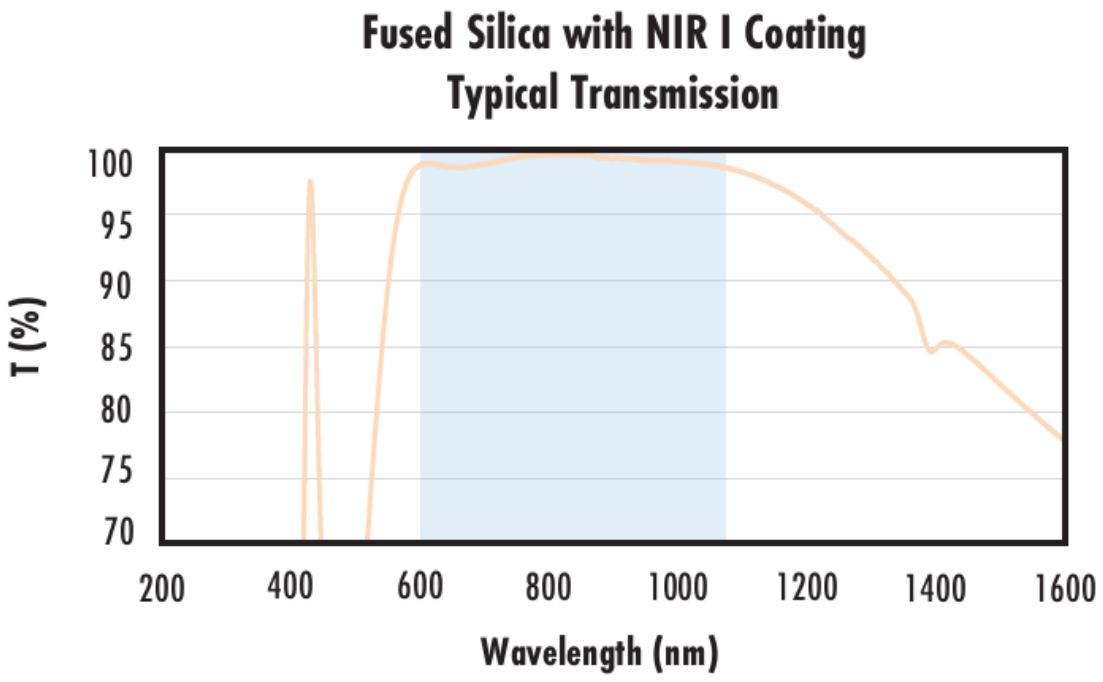


Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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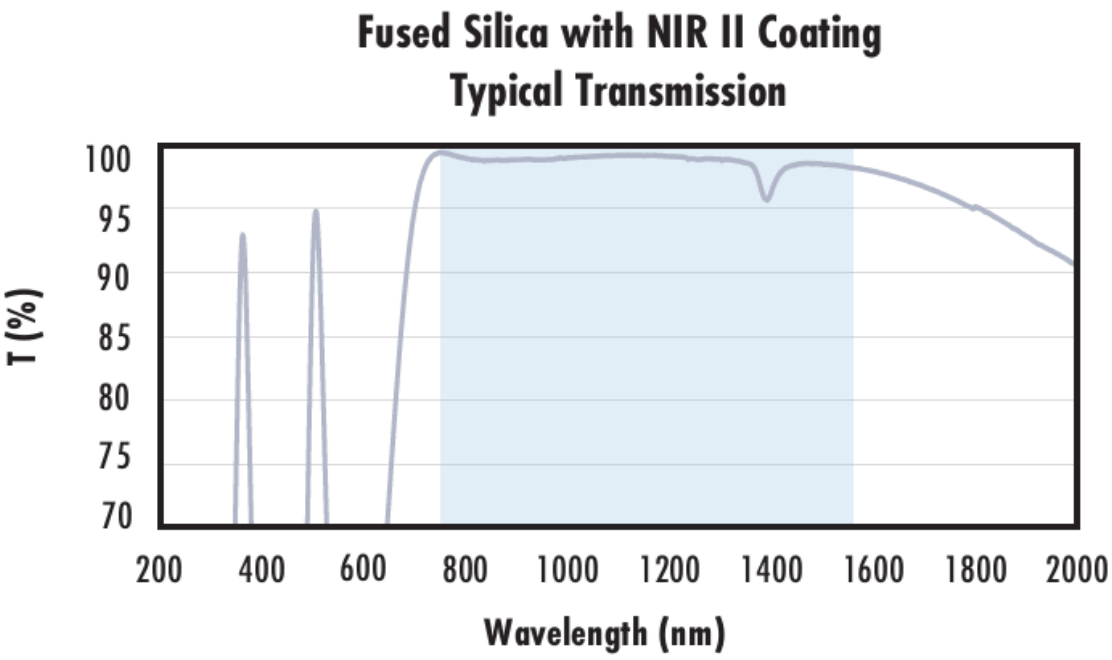


Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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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## Coating Curves

## Compatible Mounts

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