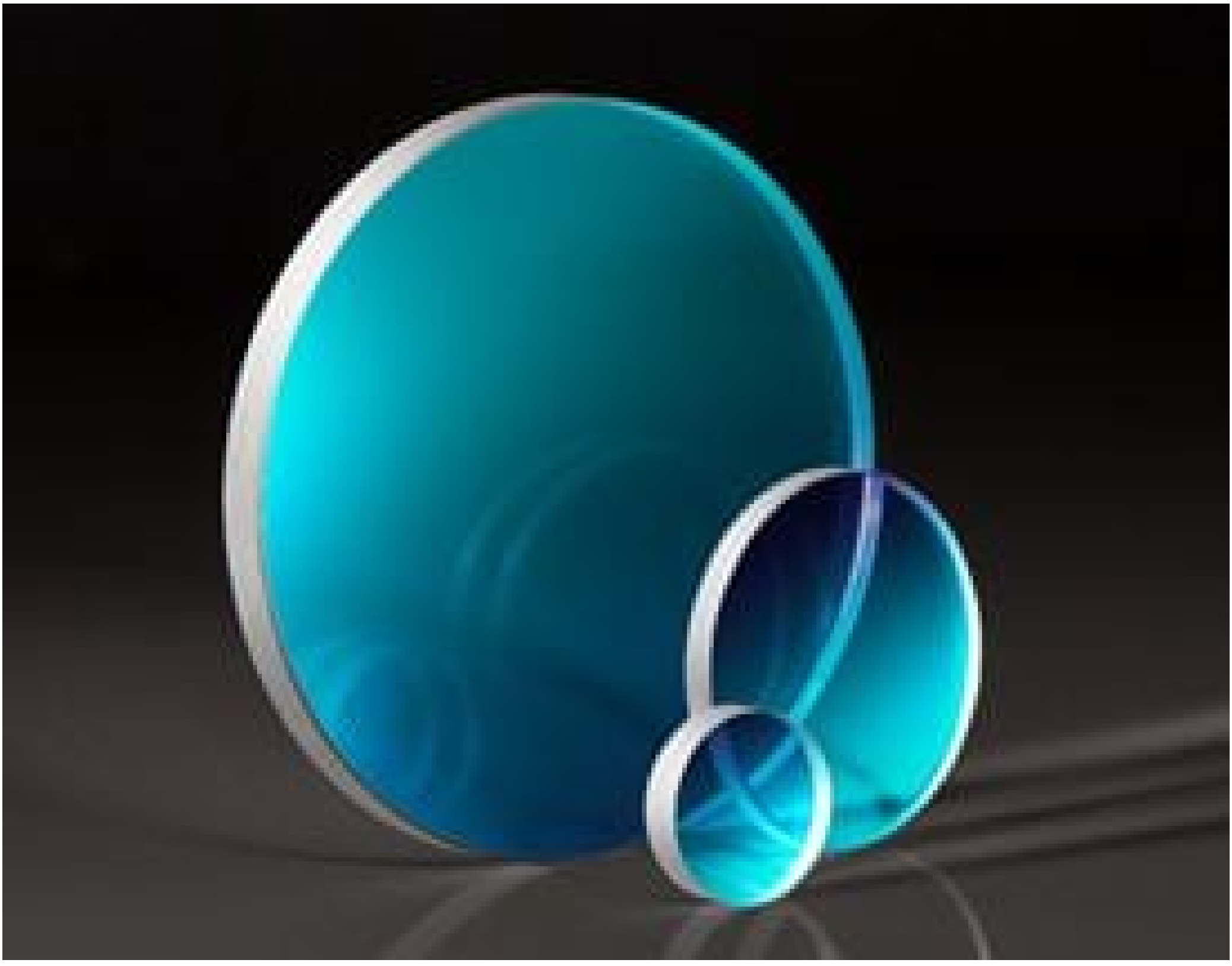
See all 25 Products in Family

# 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$481.60**

**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

**Type:**
Wedged Window

## Physical & Mechanical Properties

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

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

**Thickness (mm):**
3.00 ±0.20

**Edges:**
Fine Ground

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

**Wedge Angle (arcmin):**
30' ±10'

## Optical Properties

**Coating:**
NIR I (600-1050nm)

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

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

**Surface Quality:**
20-10

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

**Wavelength Range (nm):**
600 - 1050

**Surface Flatness (P-V):**
λ/10

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

## 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

**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
- Scalable production—from prototype to volume

Learn more about our custom manufacturing capabilities or submit an inquiry here.

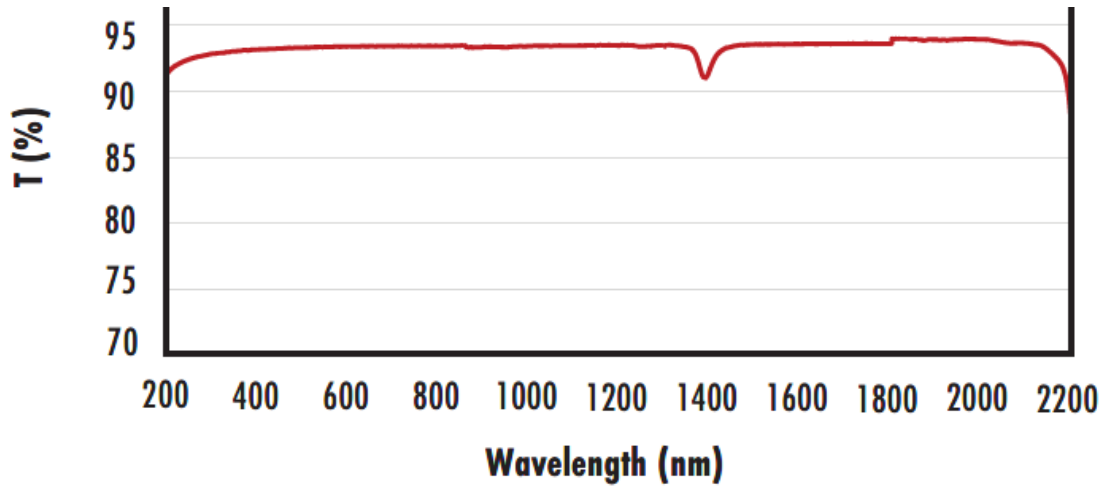
## Product Details

- UV Fused Silica Substrates with a 30 Arcminute Wedge
- λ/10 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.

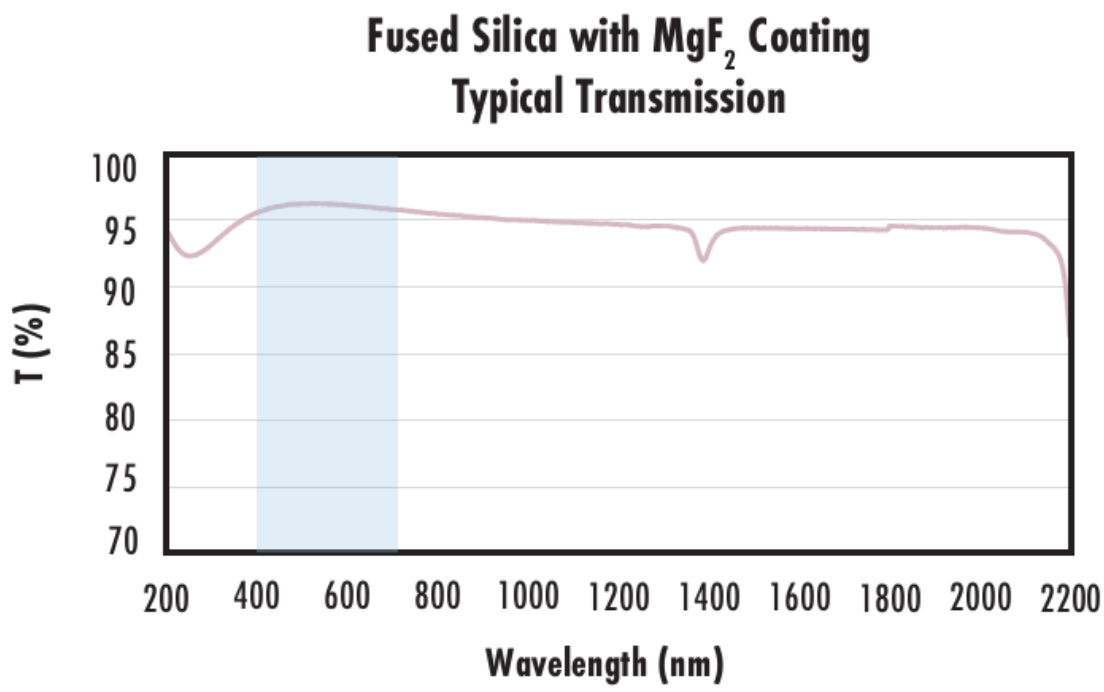
## Technical Information

FUSED SILICA




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

Click Here to Download Data



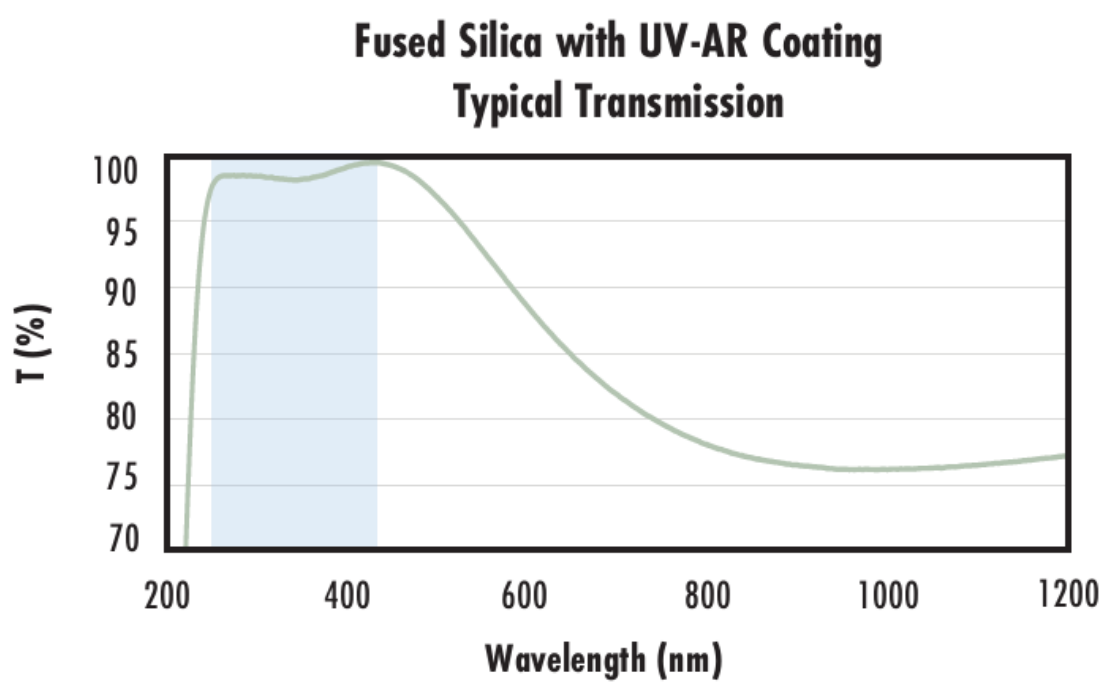

Typical transmission of a 3mm thick fused silica window with MgF2 (400-700nm) coating at 0° AOI.

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.

Click Here to Download Data



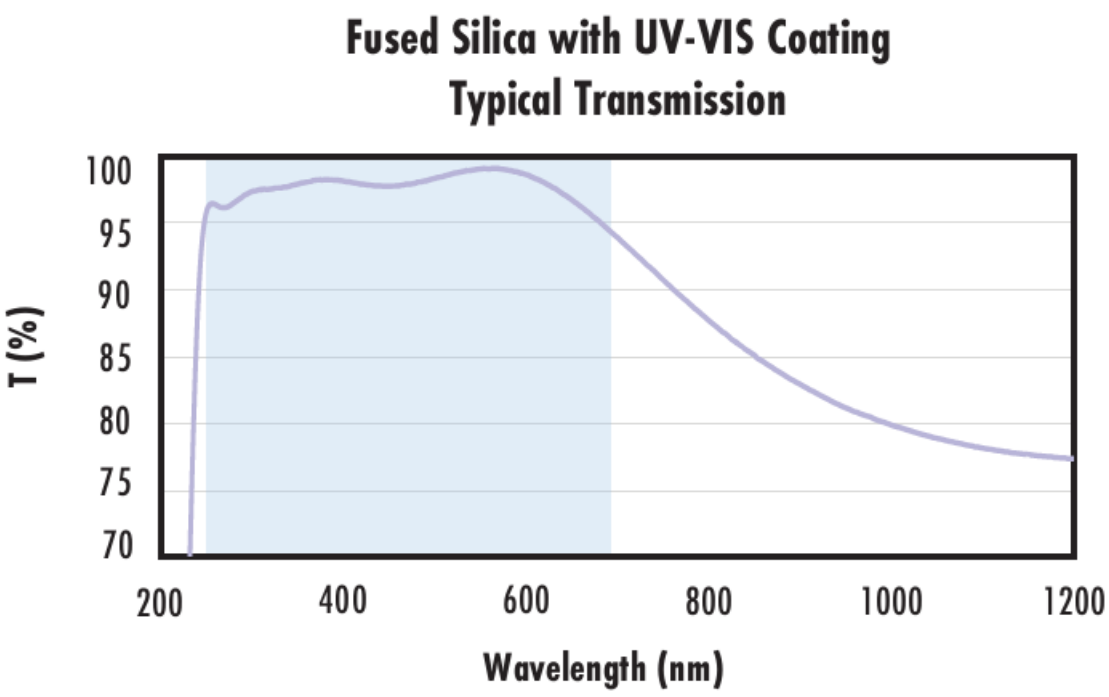

Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

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.

Click Here to Download Data



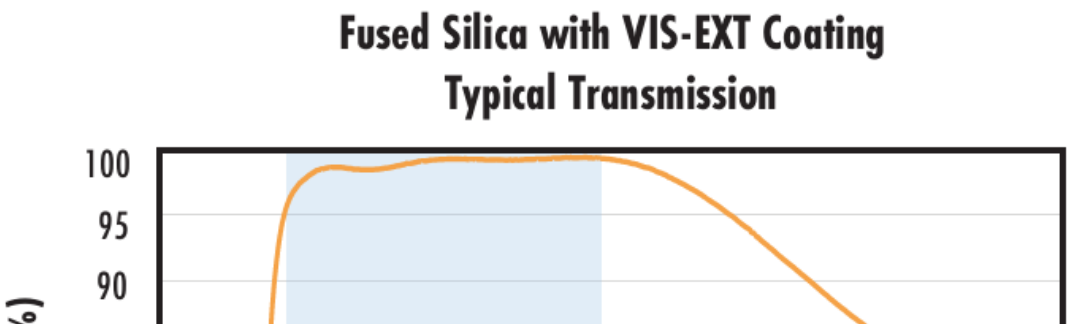

Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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

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

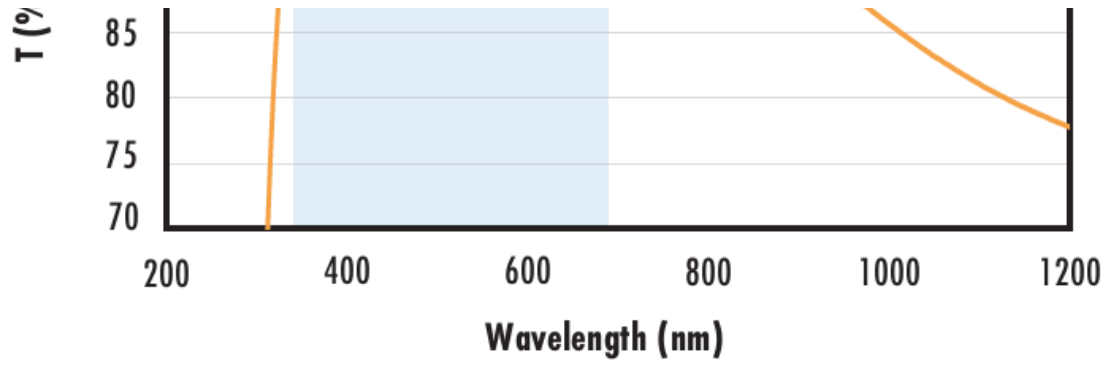
Data outside this range is not guaranteed and is for reference only.

Click Here to Download Data




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

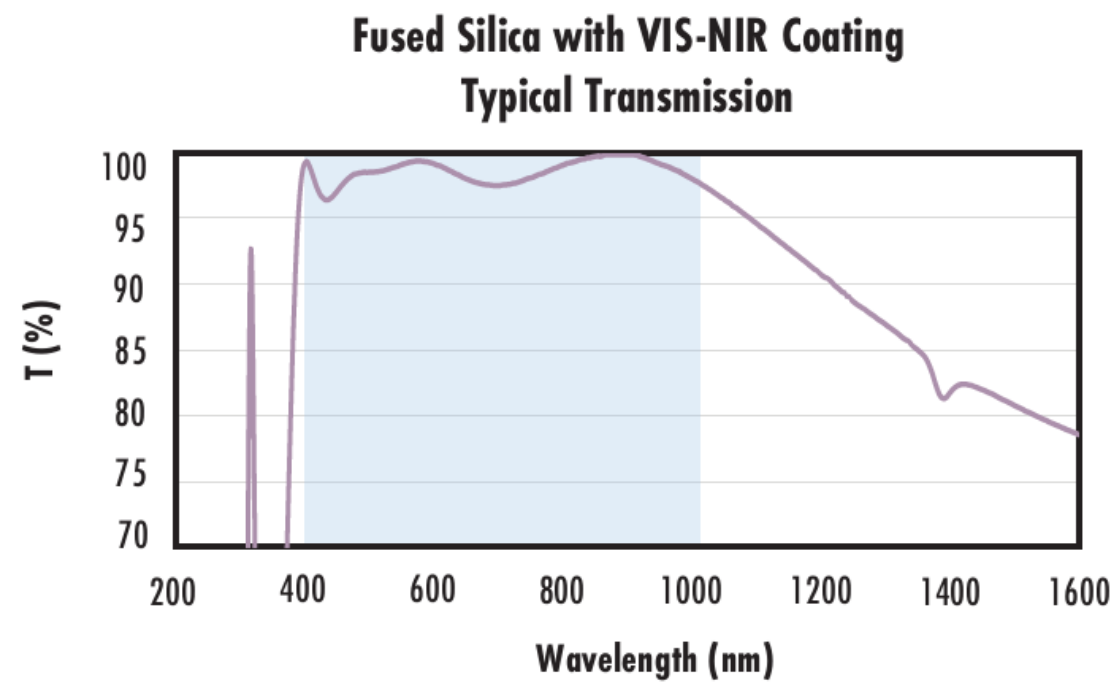
The blue shaded region indicates the coating design wavelengh range, with the following specification:




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

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

Click Here to Download Data



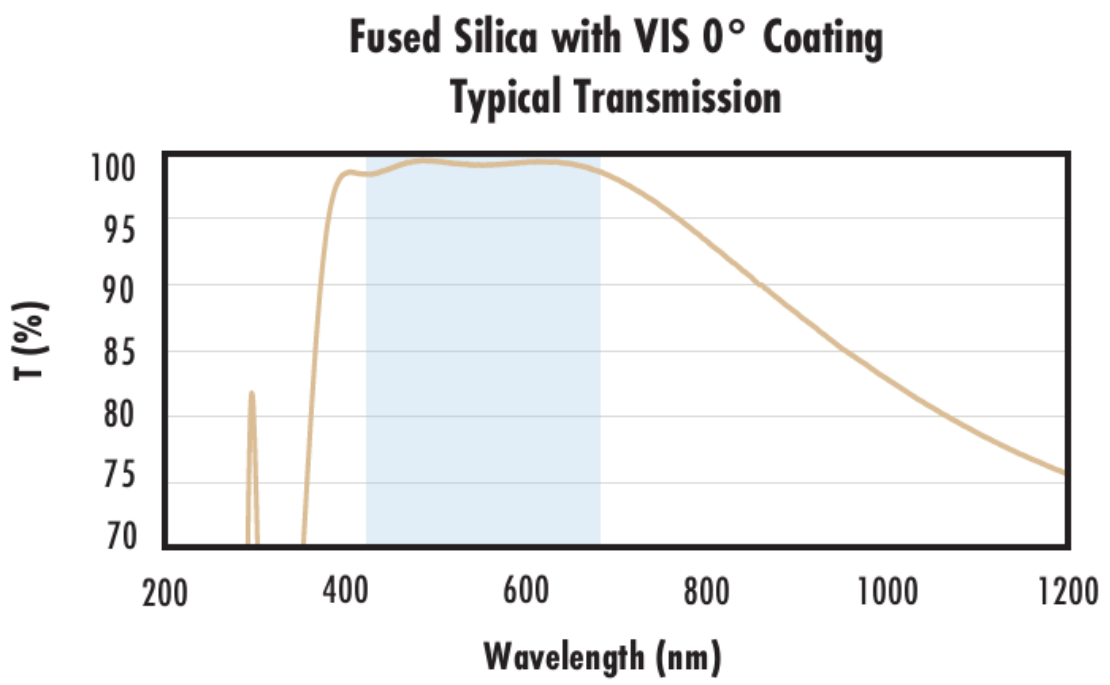

Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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.

Click Here to Download Data



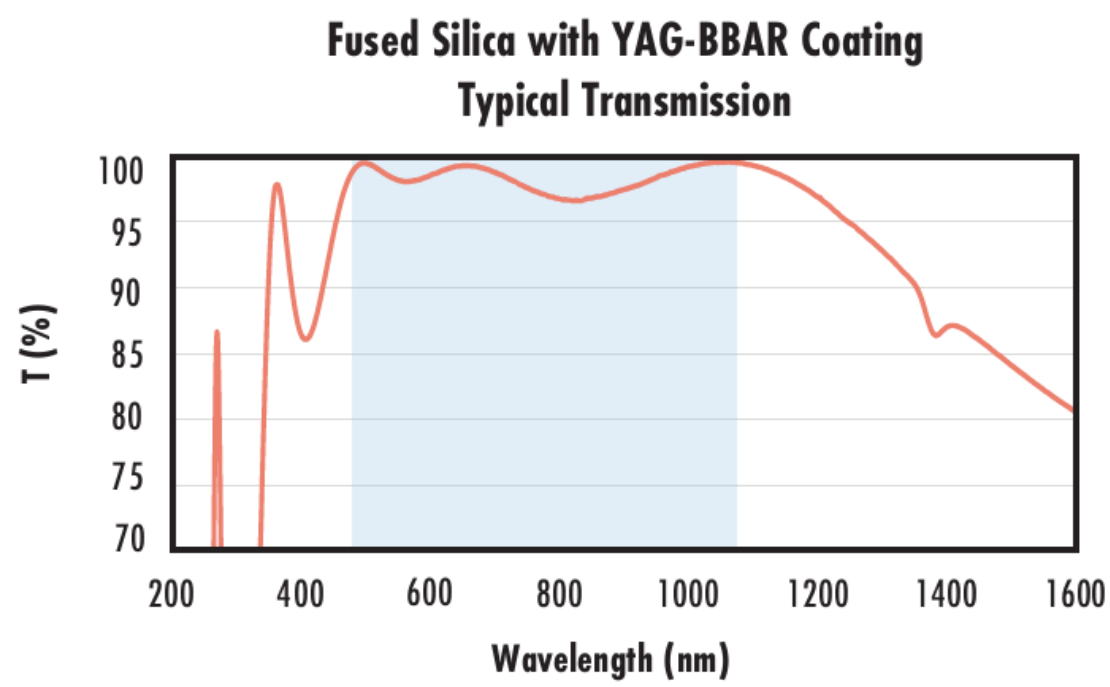

Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

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

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

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

Click Here to Download Data



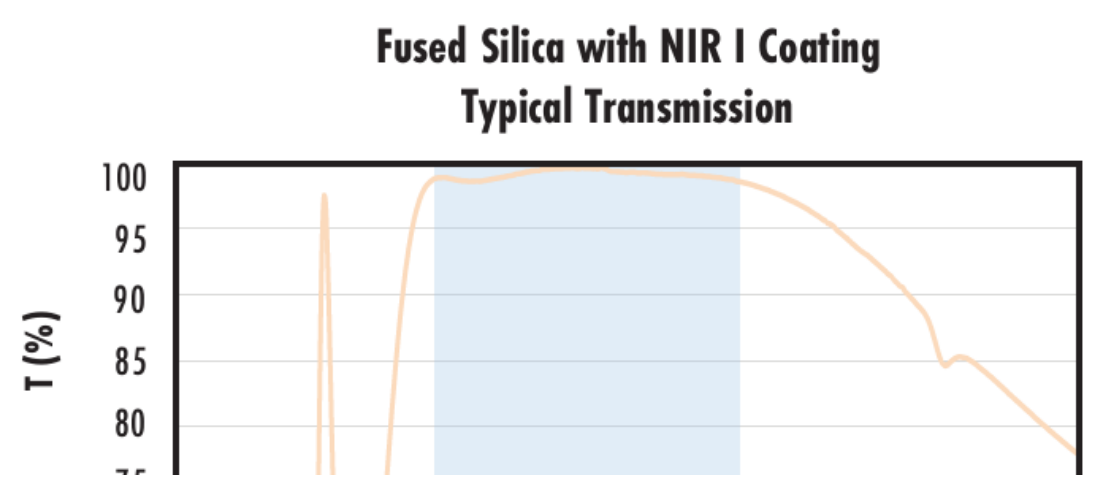

Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

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

Click Here to Download Data



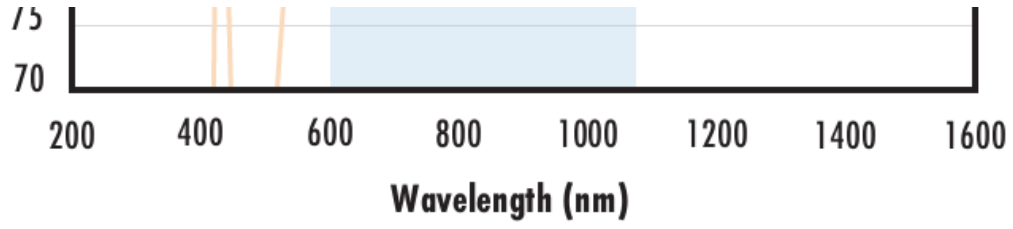

Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.

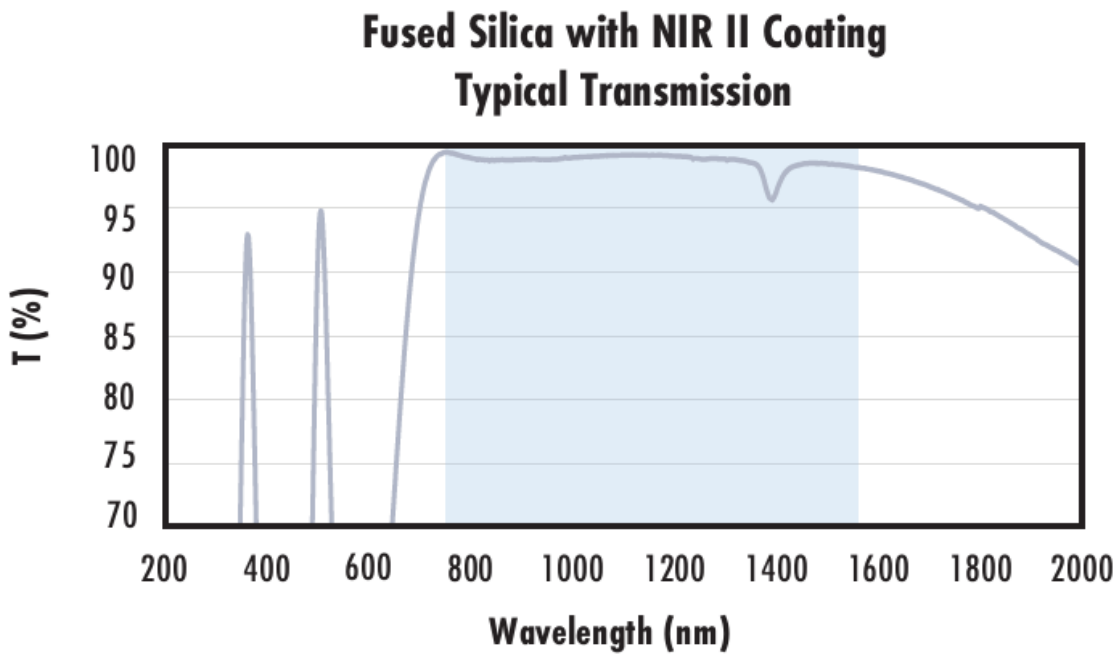
The blue shaded region indicates the coating design wavelengh range, with the following specification:

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

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 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.

Click Here to Download Data

;