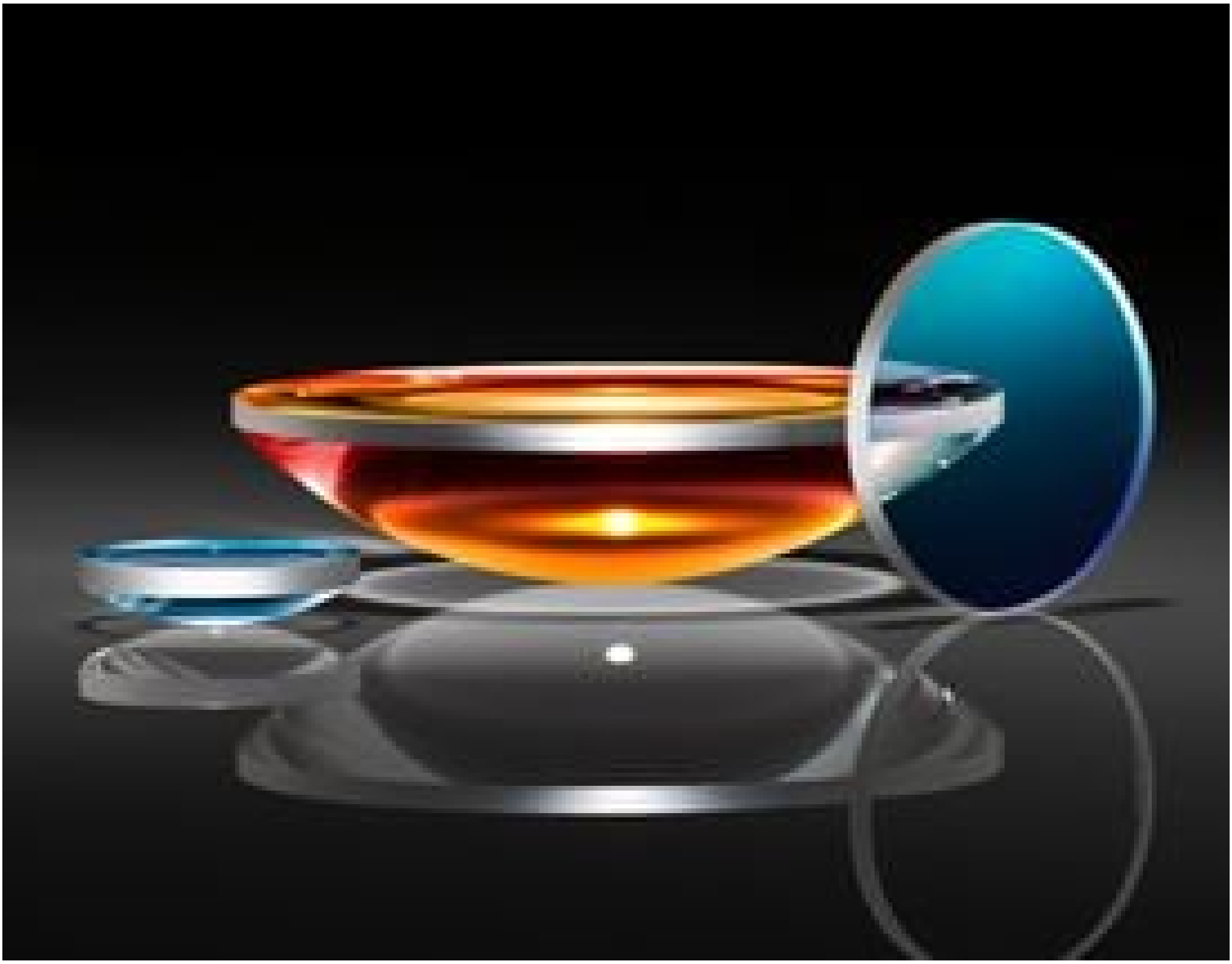
# TECHSPEC® 12mm Dia. x 100mm FL, YAG-BBAR Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses

Stock **#18-063** **8 In Stock**

- 1 + **A$238.40**

**ADD TO CART**

| Volume Pricing | |
|---|---|
| Qty 1-5 | **A$238.40** each |
| Qty 6-25 | **A$190.40** each |
| Qty 26-49 | **A$179.20** each |
| Need More? | Request Quote |

Product Downloads

## SPECIFICATIONS

### General

**Type:**

Plano-Convex Lens

## Physical & Mechanical Properties

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

**Centering (arcmin):**
<1

**Center Thickness CT (mm):**
2.44 ±0.05

**Edge Thickness ET (mm):**
2.05

**Clear Aperture CA (mm):**
11

**Bevel:**
Protective as needed

## Optical Properties

**Effective Focal Length EFL (mm):**
100.00 @ 587.6nm

**Back Focal Length BFL (mm):**
98.33

**Coating:**
YAG-BBAR (500-1100nm)

**Coating Specification:**
$R_{abs}$ <0.25% @ 532nm
$R_{abs}$ <0.25% @ 1064nm
$R_{avg}$ <1.0% @ 500 - 1100nm

**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 $R_1$ (mm):**
45.85

**f/#:**
8.33

**Numerical Aperture NA:**
0.06

**Wavelength Range (nm):**
500 - 1100

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

## Regulatory Compliance

**RoHS 2015:**
Compliant

**Certificate of Conformance:**
View

**Reach 235:**
Compliant

# PRODUCT DETAILS

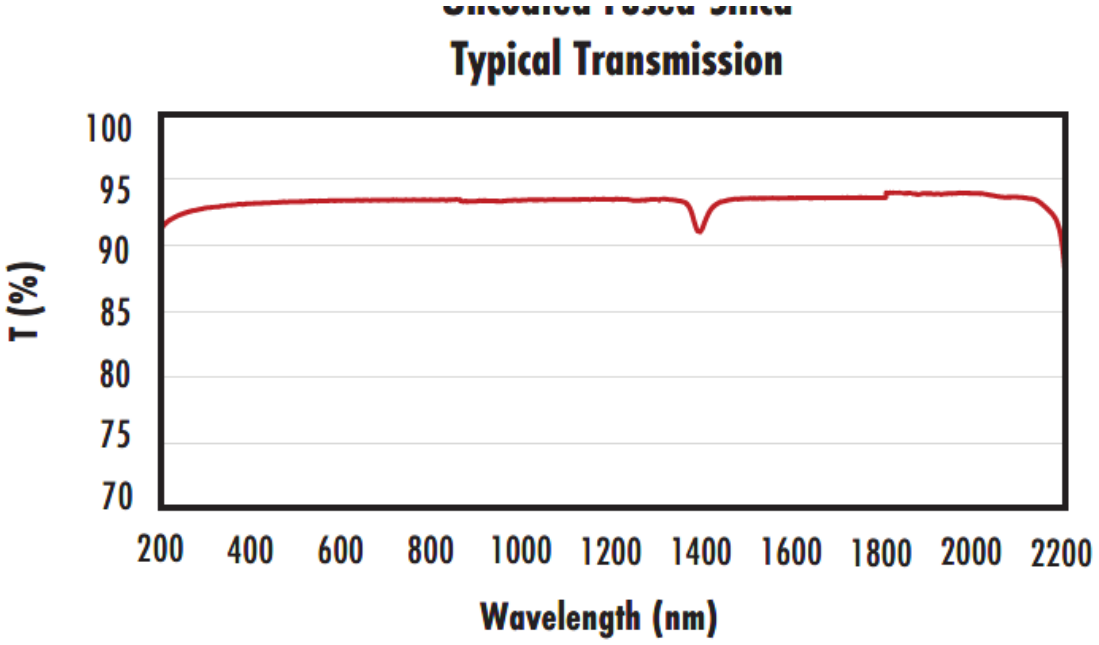
- AR Coated to Provide <1.0% Reflection per Surface for 500 - 1100nm
- Precision Fused Silica Substrate
- Various Coating Options: Uncoated, $MgF_2$, UV-AR, UV-VIS, VIS-EXT, VIS-NIR, VIS 0°, NIR I, and NIR II

TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses YAG-BBAR 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 YAG-BBAR Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are YAG-BBAR coated and feature less than 0.25% reflection at common Nd:YAG laser wavelengths of 532nm and 1064nm.

# TECHNICAL INFORMATION

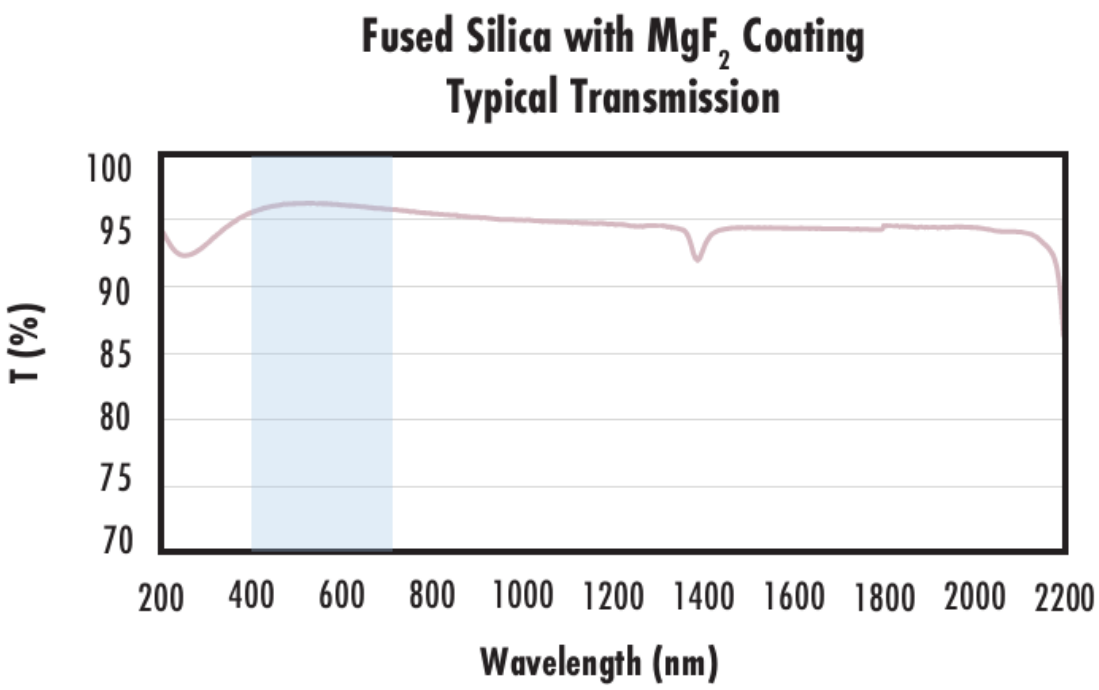
FUSED SILICA

Uncoated Fused Silica




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

Click Here to Download Data



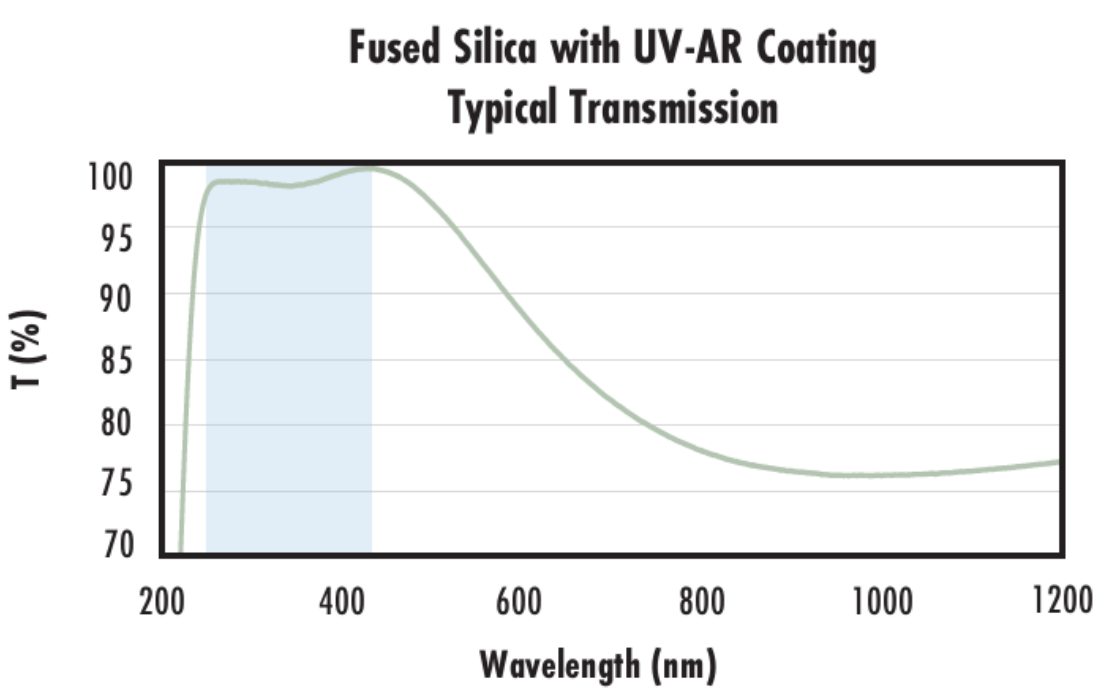

Typical transmission of a 3mm thick fused silica window with MgF2 (400-700nm) coating at 0° AOI.

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



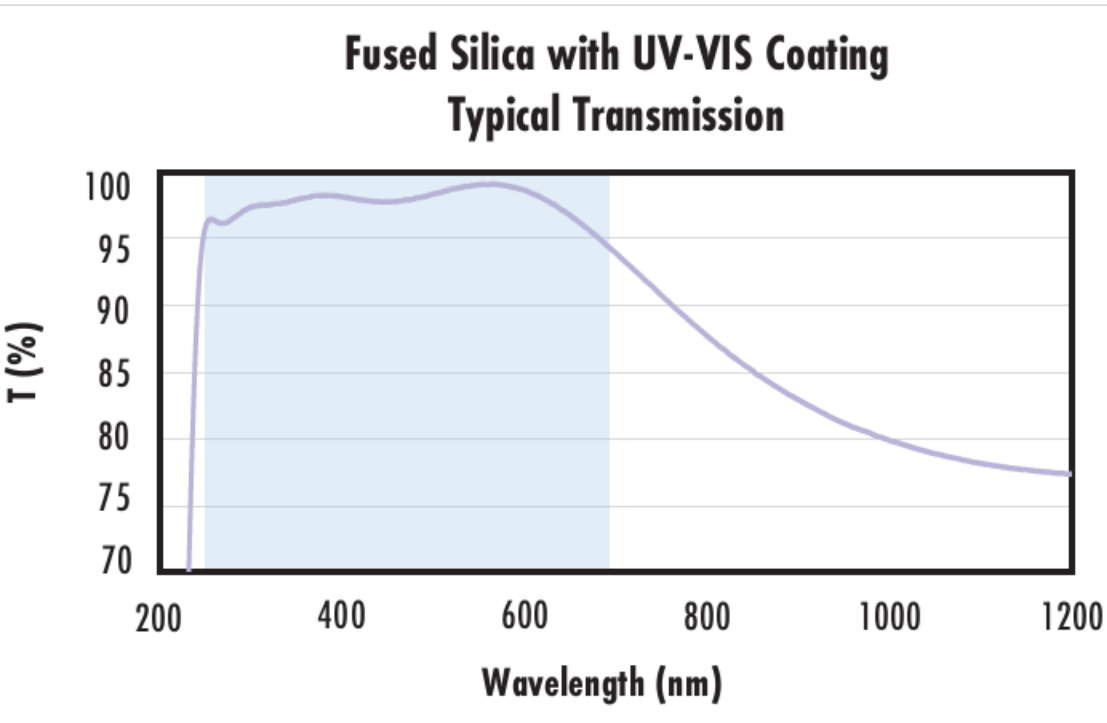

Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

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



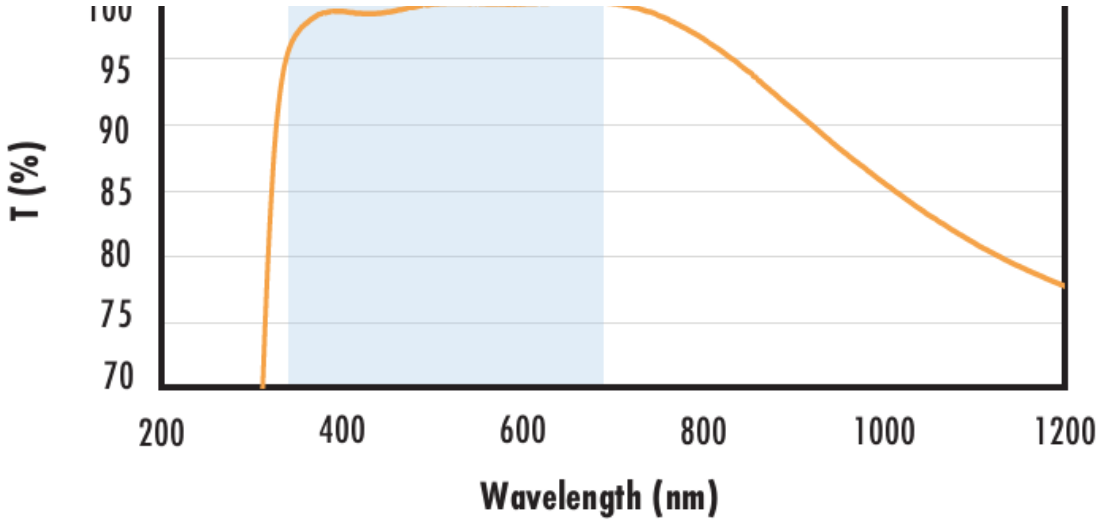

Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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



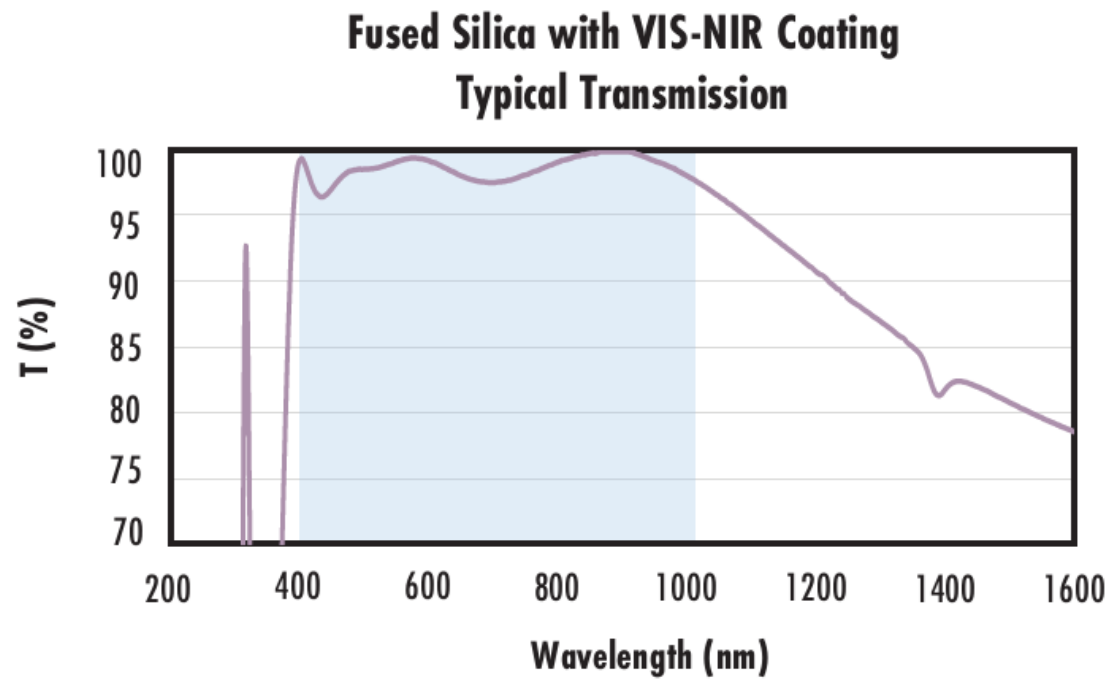

Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

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**



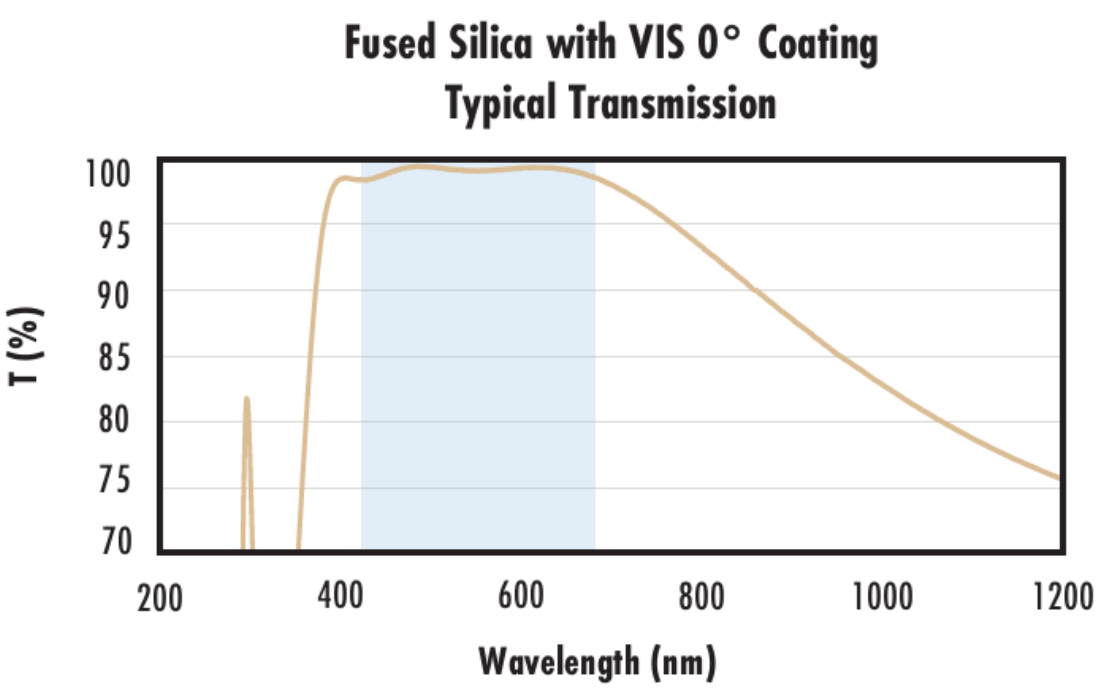

Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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**



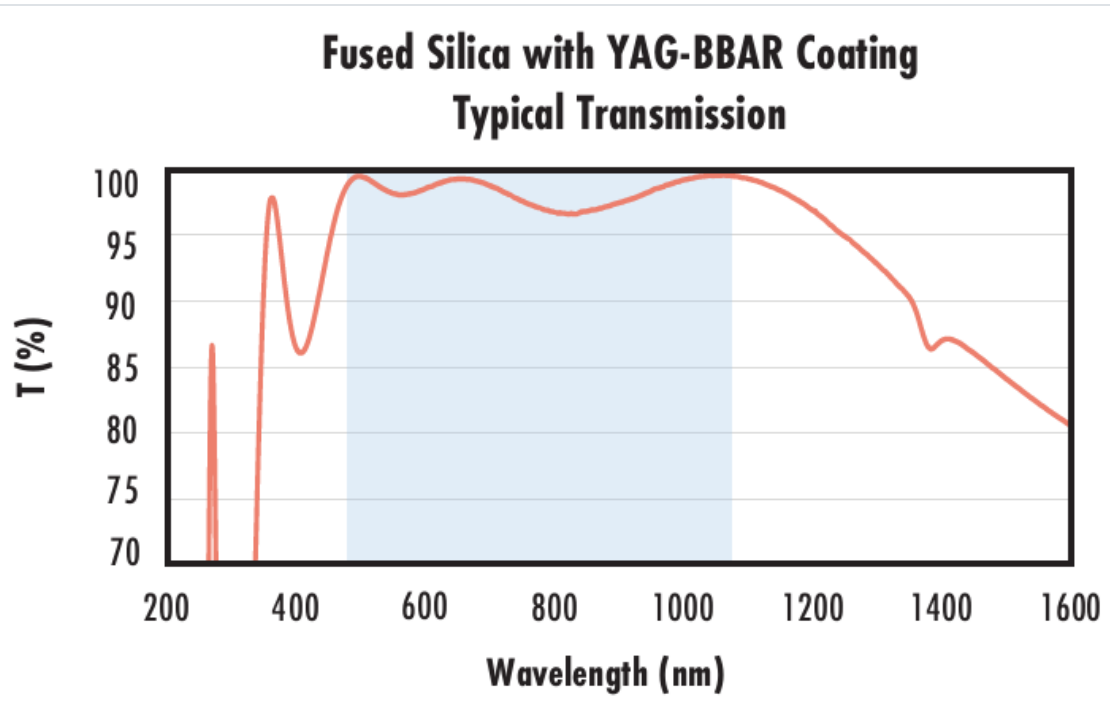

Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

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**



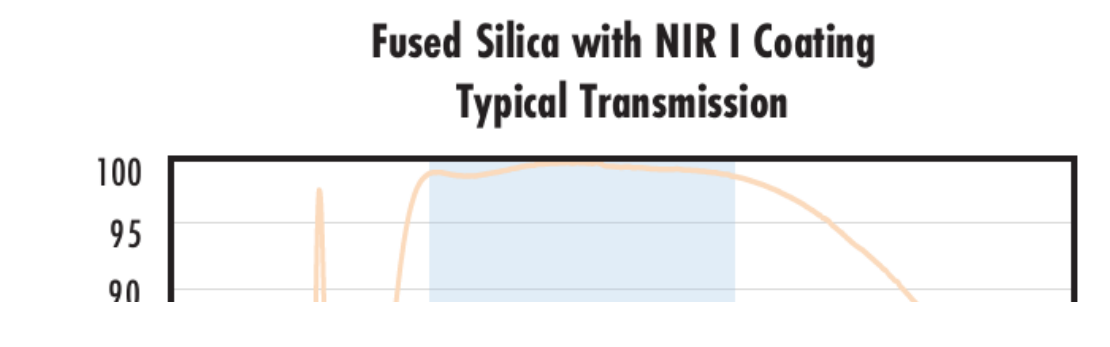

Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

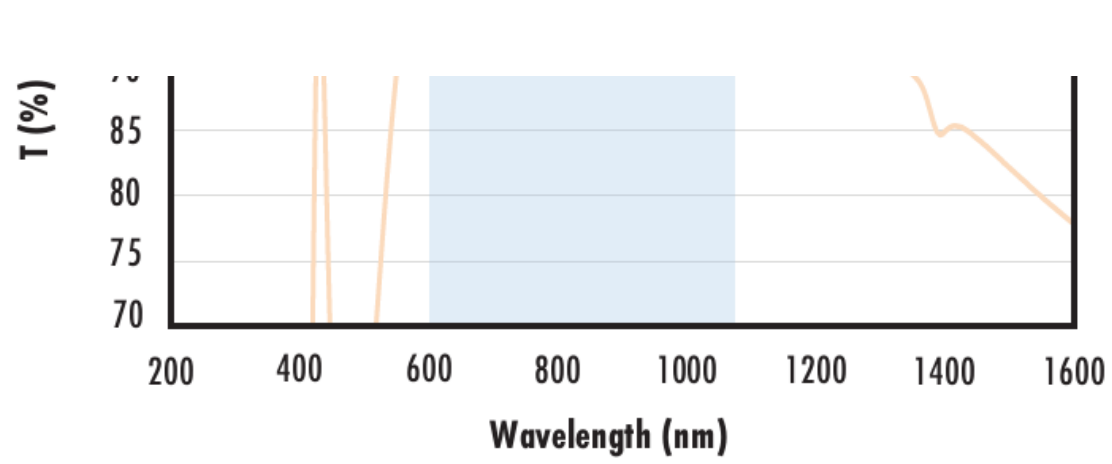
Data outside this range is not guaranteed and is for reference only.

**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

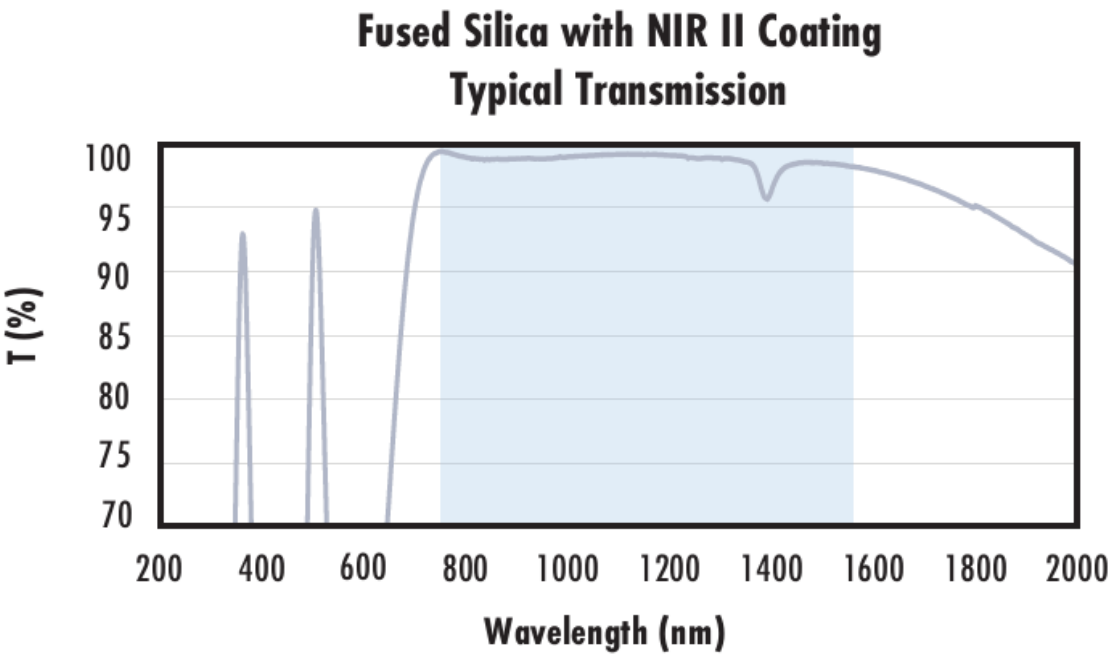



range, with the following specification:

$R_{avg} \leq 0.5\%$ @ 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**

## 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.**