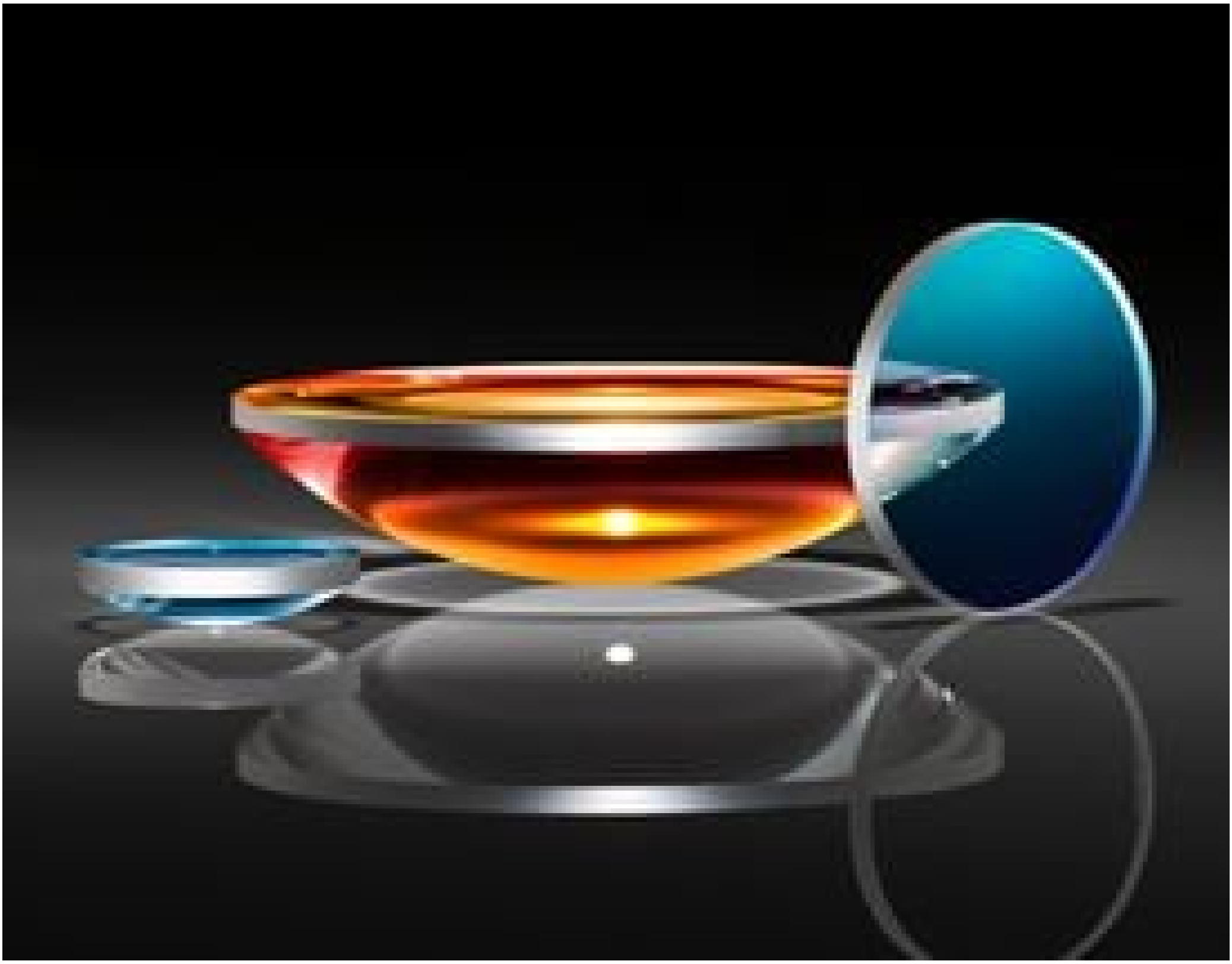
TECHSPEC® 10mm Dia. x 20mm FL, MgF_2 Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses

Stock **#17-964** CLEARANCE **3 In Stock**

- 1 + **A$161.60**

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SPECIFICATIONS

General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):
10.00 -0.025

Centering (arcmin):
<1

Center Thickness CT (mm):
3.00 ±0.05

Edge Thickness ET (mm):
1.52

Clear Aperture CA (mm):
9

Bevel:
Protective as needed

Optical Properties

Effective Focal Length EFL (mm):
20.00 @ 587.6nm

Back Focal Length BFL (mm):
17.94

Coating:
MgF_2 (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 R_1 (mm):
9.17

f/#:
2

Numerical Aperture NA:
0.25

Wavelength Range (nm):
400 - 700

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

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 235:
Compliant

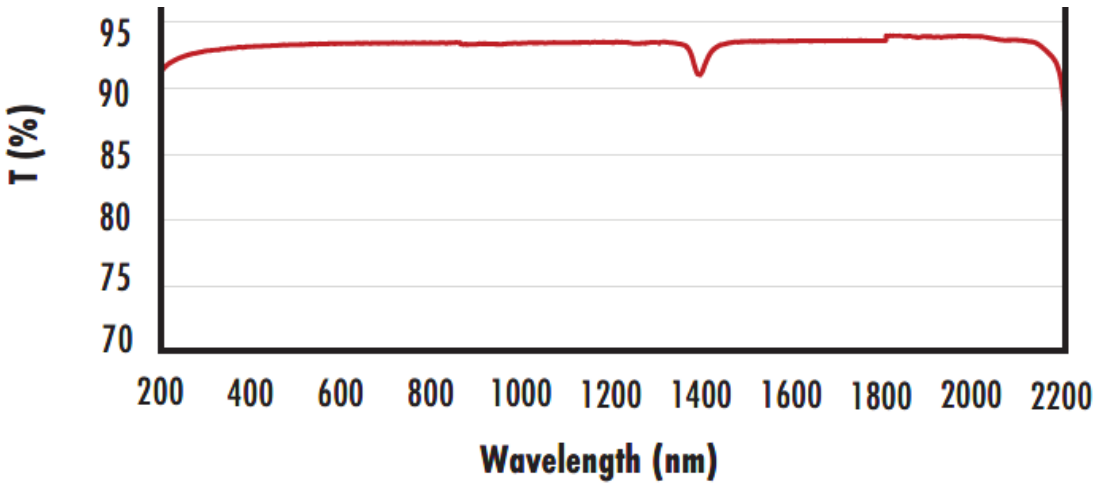
PRODUCT DETAILS

- 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

FUSED SILICA



Typical transmission of an uncoated fused silica window across the UV - NIR spectra.

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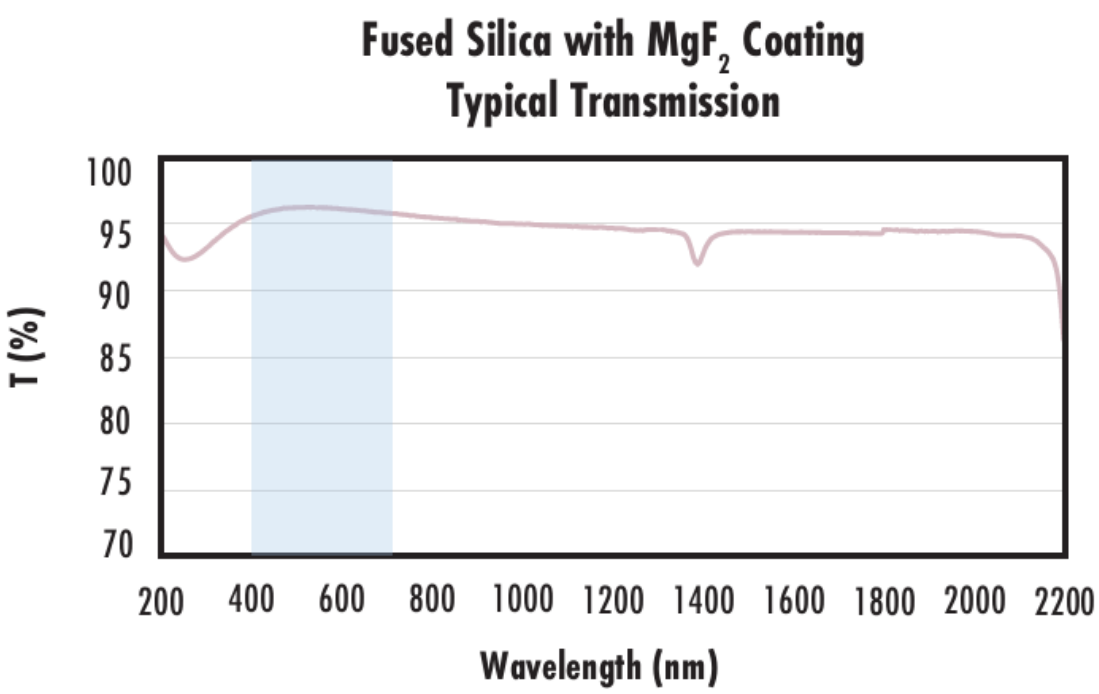

Typical transmission of a fused silica window with MgF2 (400-700nm) coating at 0° AOI.

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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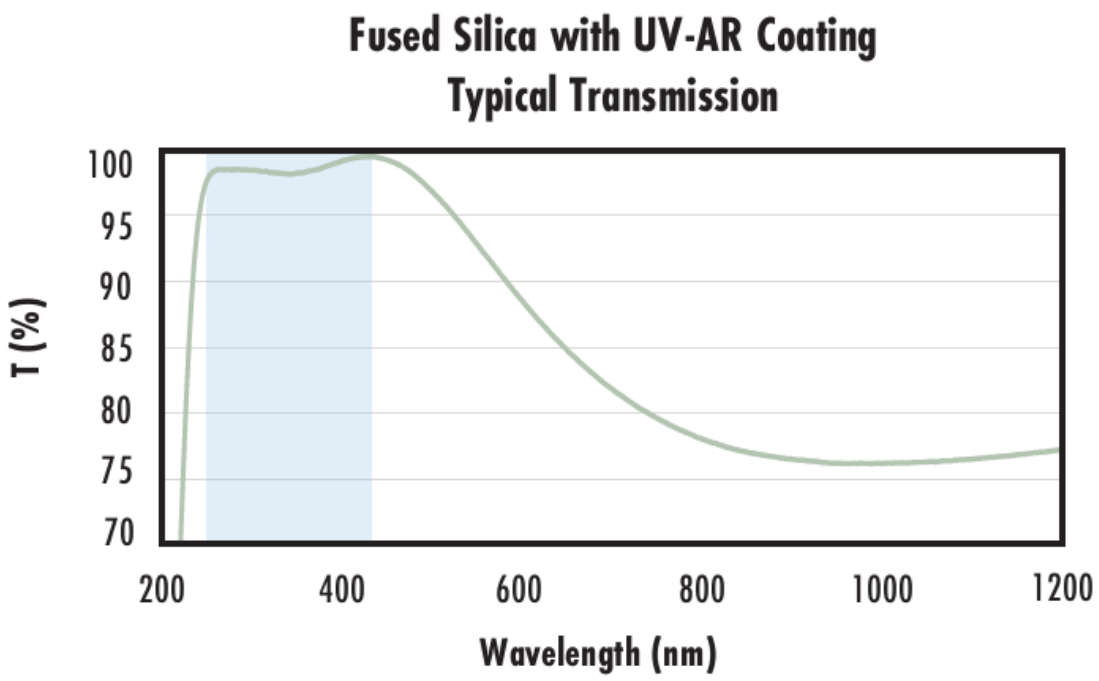

Typical transmission of a fused silica window with UV-AR (250-425nm) coating at 0° AOI.

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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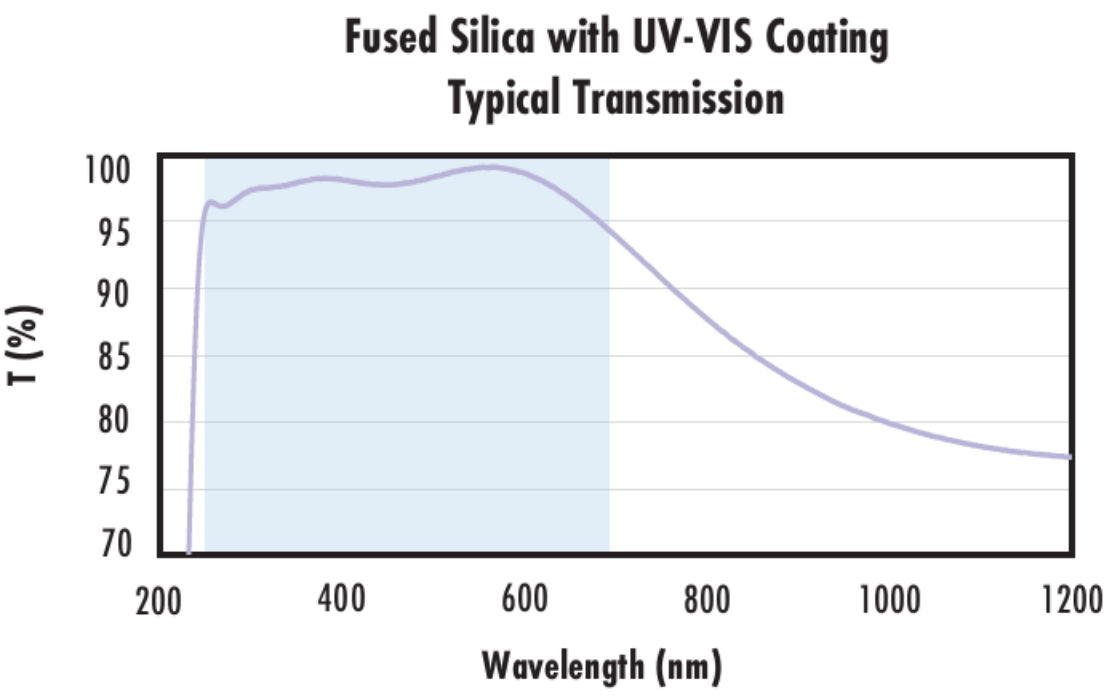

Typical transmission of a fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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.

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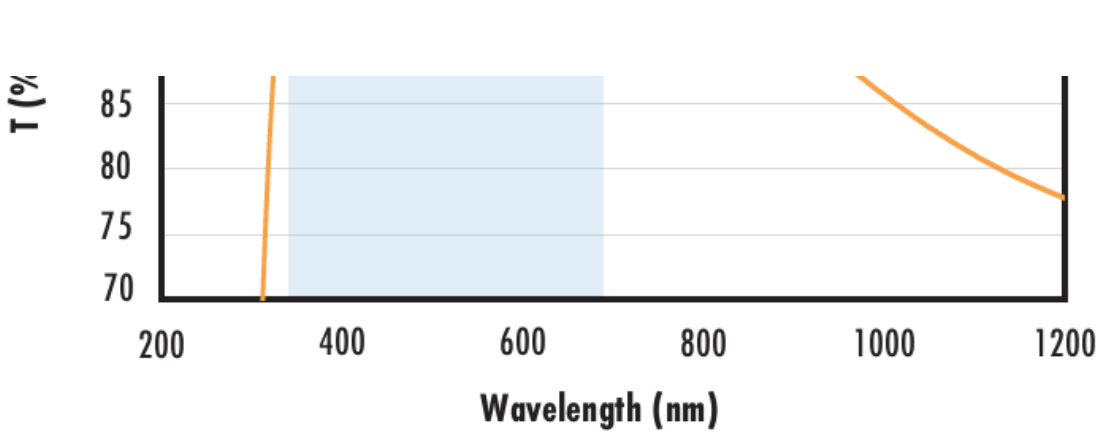
Typical transmission of a fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

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.

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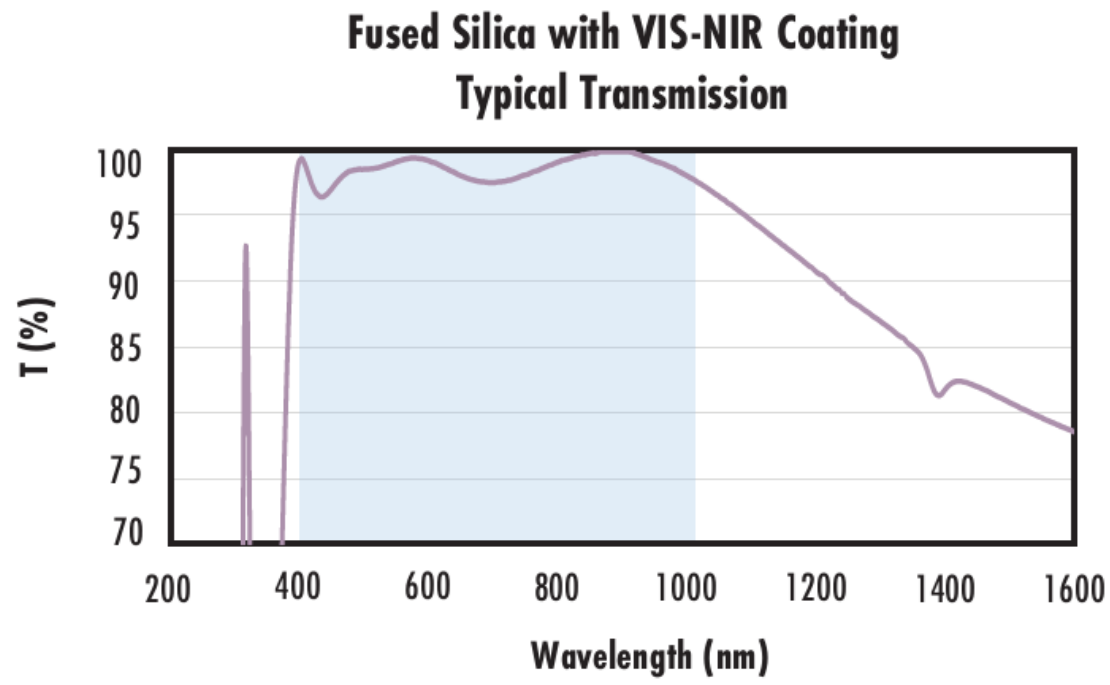

Typical transmission of a fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

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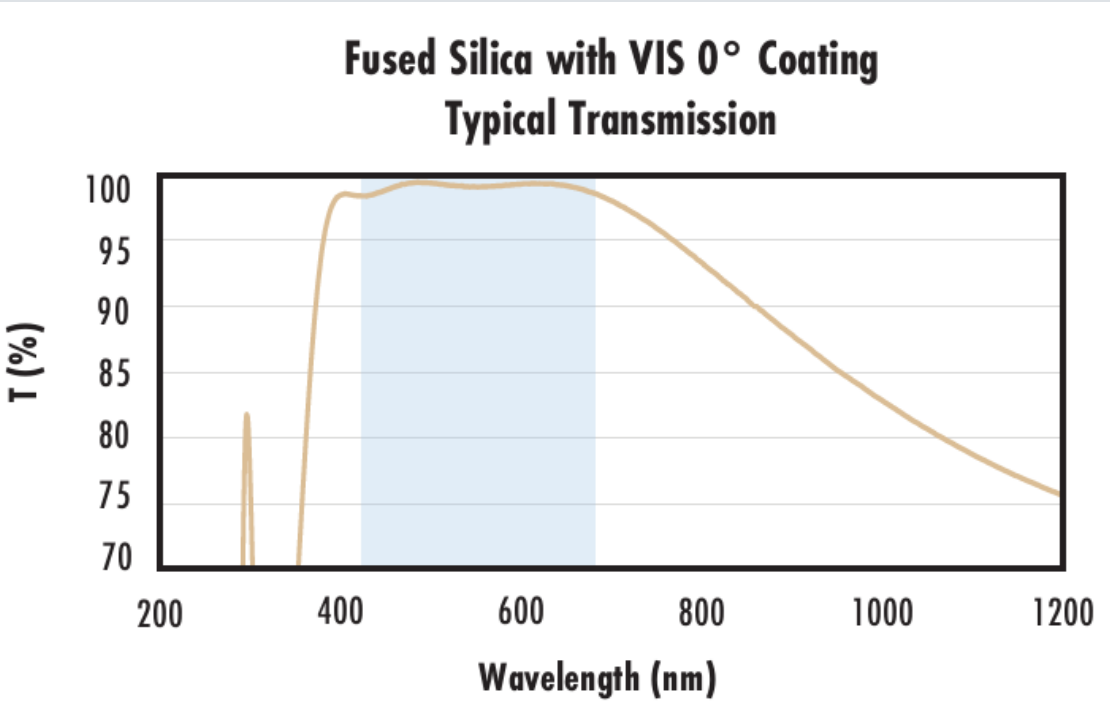

Typical transmission of a fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

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

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

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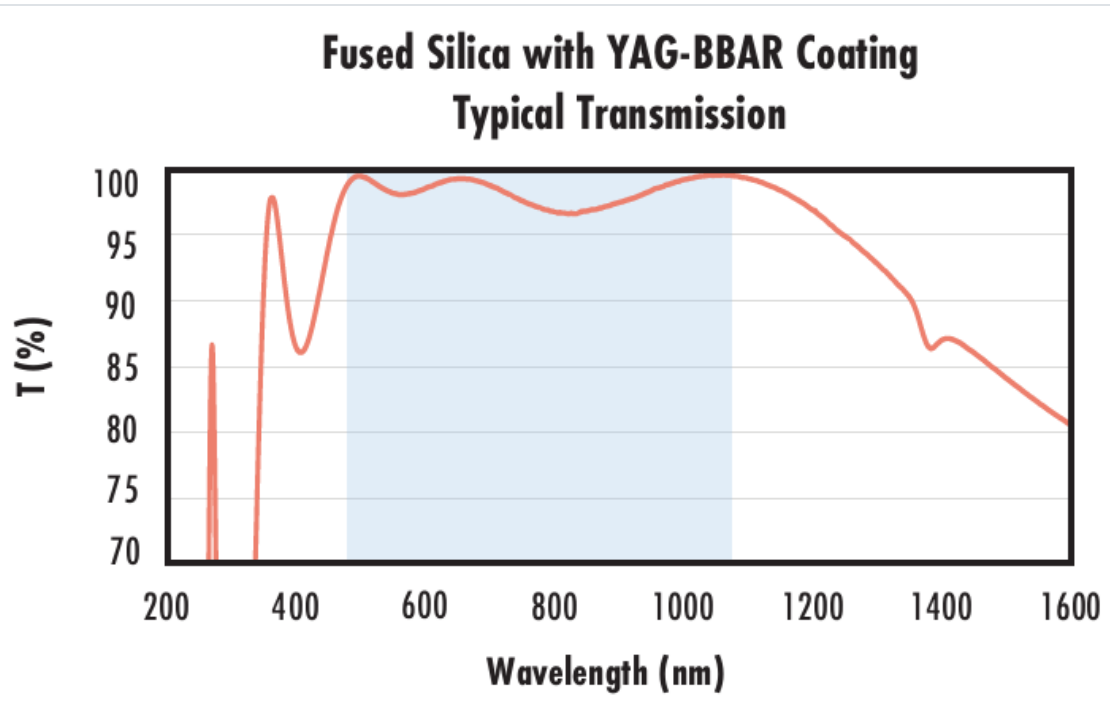

Typical transmission of a fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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.

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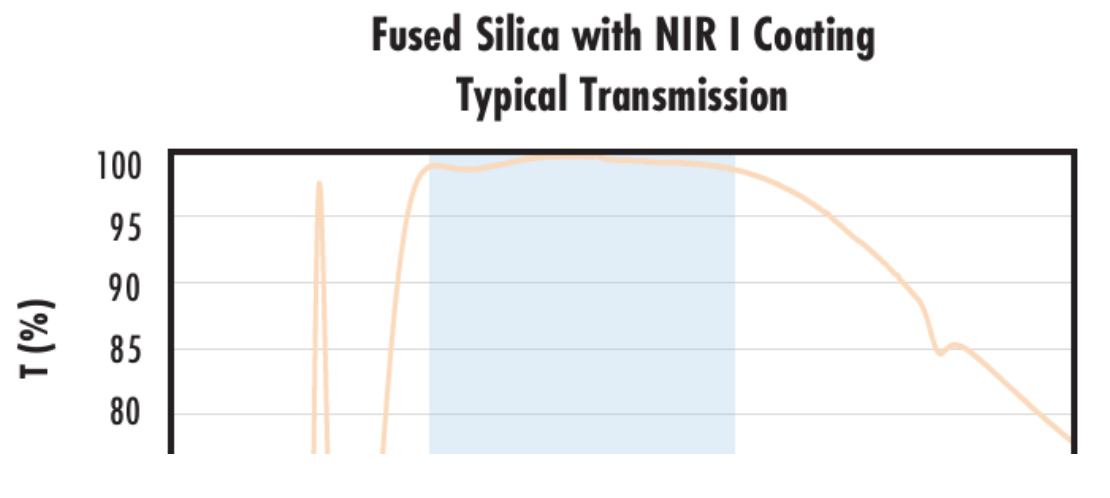

Typical transmission of a fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.

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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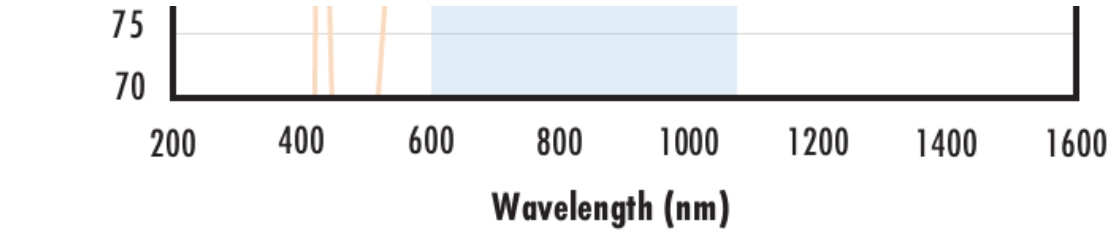

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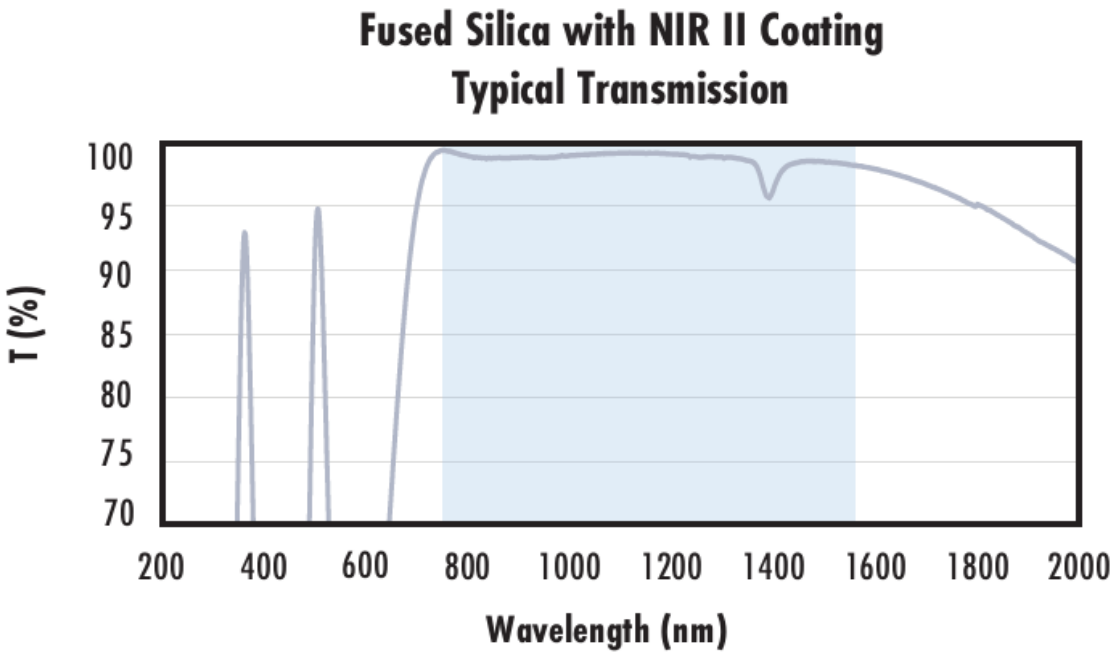

Typical transmission of a fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.

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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