

TECHSPEC® 12mm Dia. x 75mm FL, VIS 0° Coated, UV Double-Convex Lens



UV Fused Silica Double-Convex (DCX) Lenses



Stock #48-979 **15 In Stock**

[Other Coating Options](#)

1 **\$201⁰²**

ADD TO CART

Volume Pricing	
Qty 1-5	\$201.62 each
Qty 6-25	\$161.30 each
Qty 26-49	\$150.84 each
Need More?	Request Quote

Product Downloads

SPECIFICATIONS

General

Double-Convex Lens

Type:

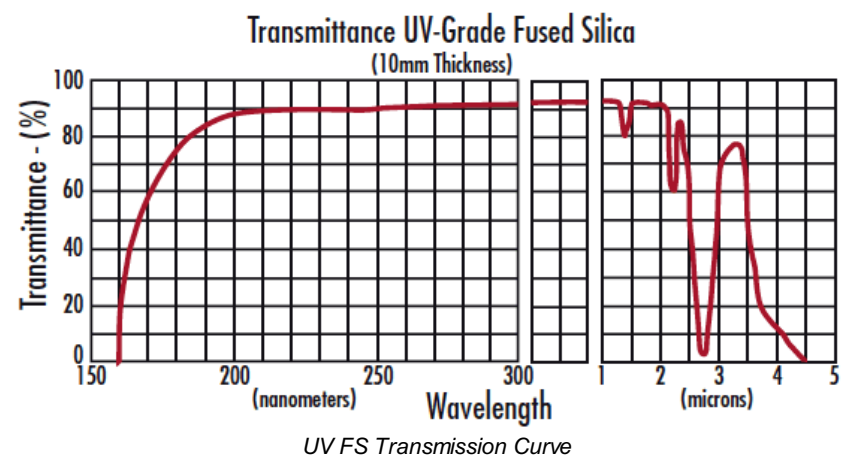
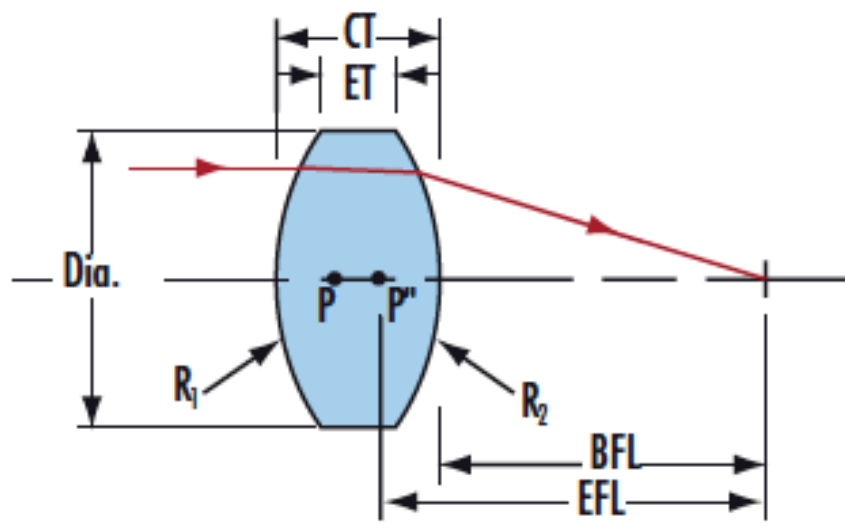
Physical & Mechanical PropertiesDiameter (mm):
12.00 +0.0/-0.025Centering (arcmin):
<1Bevel:
Protective as neededCenter Thickness CT (mm):
2.59 ±0.05Edge Thickness ET (mm):
2.06Clear Aperture CA (mm):
11.00**Optical Properties**Back Focal Length BFL (mm):
74.11Effective Focal Length EFL (mm):
75.00Coating:
MS 0° (425-675nm)Coating Specification:
 $R_{avg} \leq 0.4\% @ 425 - 675nm$ Substrate:
[Fused Silica](#) (Corning 7980)Surface Quality:
40-20Power (P-V) @ 632.8nm:
1.5λIrregularity (P-V) @ 632.8nm:
λ/4Radius $R_1=R_2$ (mm):
68.36f#:
6.25Focal Length Specification Wavelength (nm):
587.6Focal Length Tolerance (%):
±1Numerical Aperture NA:
0.08Wavelength Range (nm):
425 - 675Damage Threshold, Reference:
5 J/cm² @ 532nm, 10ns**Regulatory Compliance**RoHS 2015:
[Compliant](#)Certificate of Conformance:
[View](#)Reach 235:
[Compliant](#)

PRODUCT DETAILS

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- Precision Fused Silica Substrate

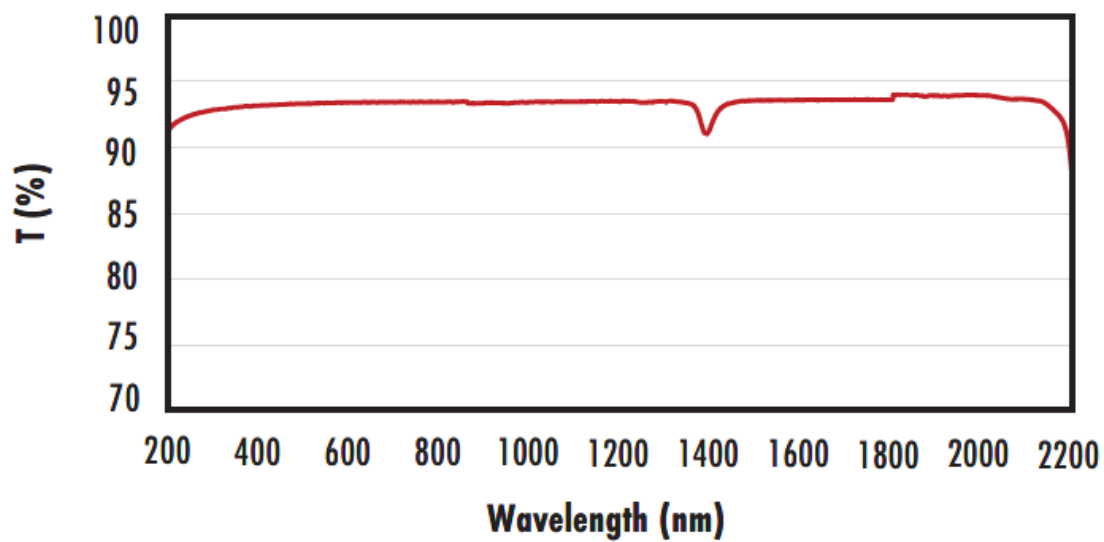
TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or canceled due to the symmetric lens design. TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses have a precision fused silica substrate. These lenses are available uncoated or with UV-AR, UV-VIS, VIS-EXT, VIS-NIR, VIS 0°, NIR I, or NIR II coatings.

TECHNICAL INFORMATION



FUSED SILICA

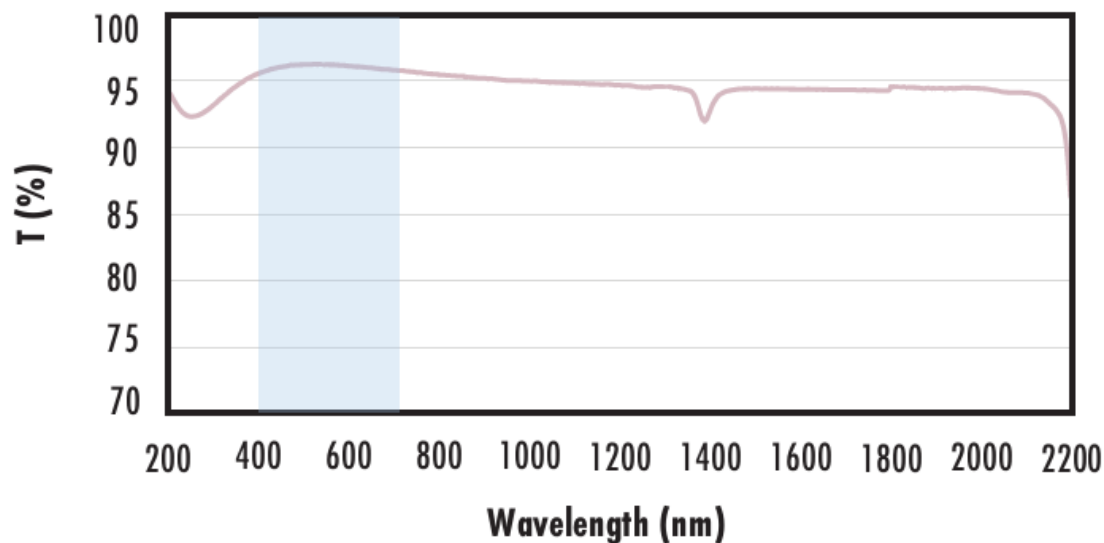
**Uncoated Fused Silica
Typical Transmission**



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

[Click Here to Download Data](#)

**Fused Silica with MgF₂ Coating
Typical Transmission**



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 wavelength range, with the following specification:

$$R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}$$

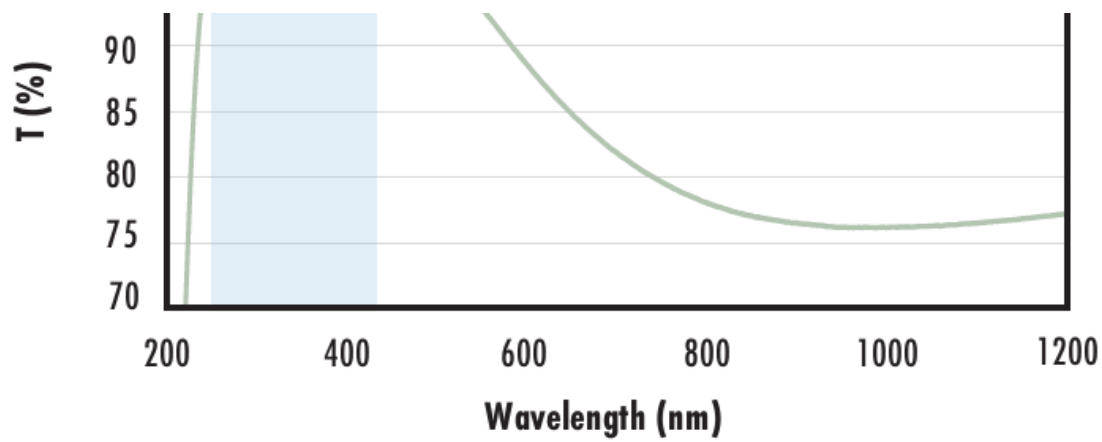
Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

**Fused Silica with UV-AR Coating
Typical Transmission**



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



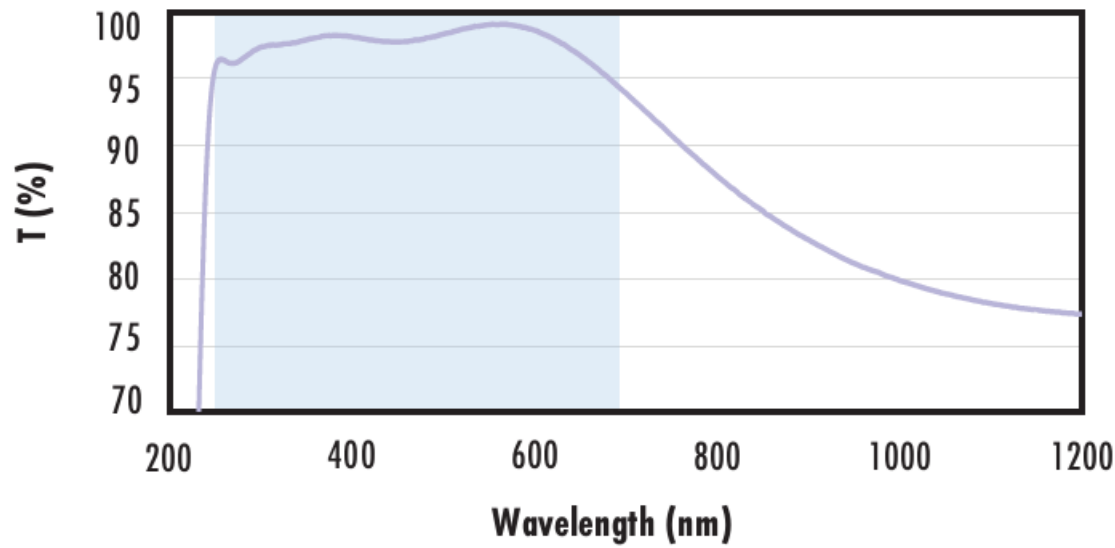
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{abs} \leq 1.0\%$ @ 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](#)

Fused Silica with UV-VIS Coating Typical Transmission



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

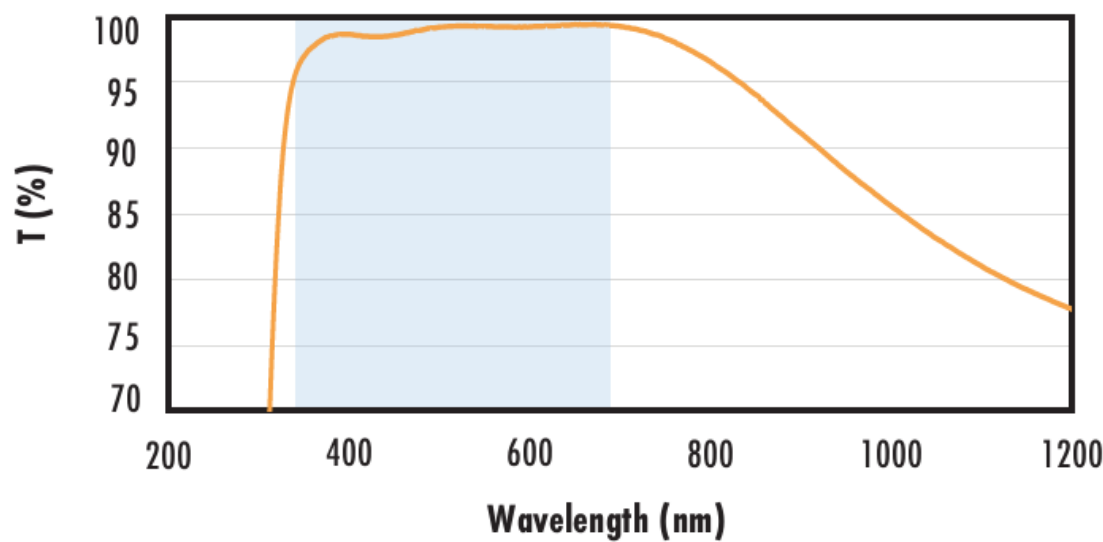
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{abs} \leq 1.0\%$ @ 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](#)

Fused Silica with VIS-EXT Coating Typical Transmission



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

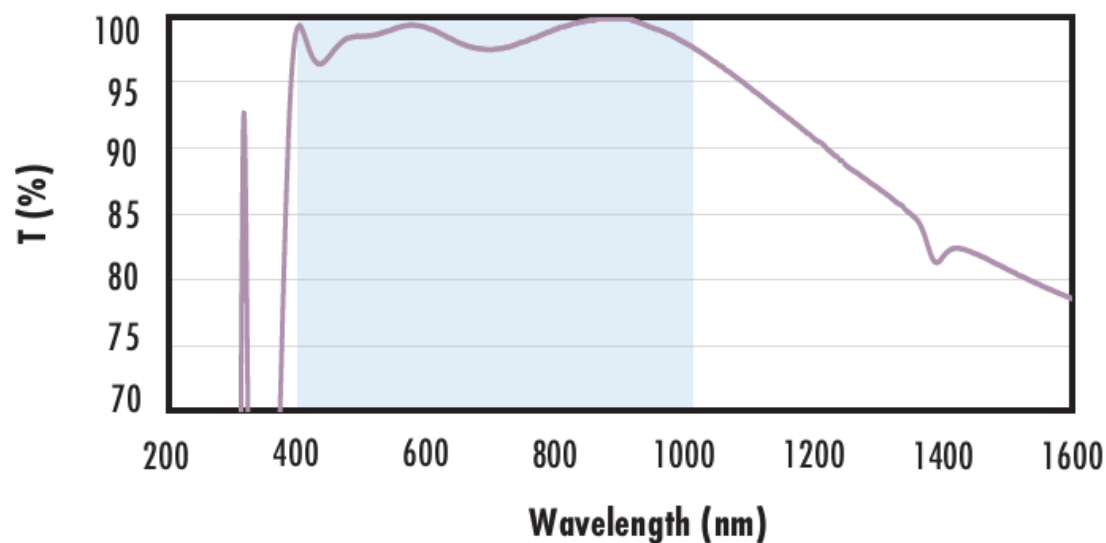
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

Fused Silica with VIS-NIR Coating Typical Transmission



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

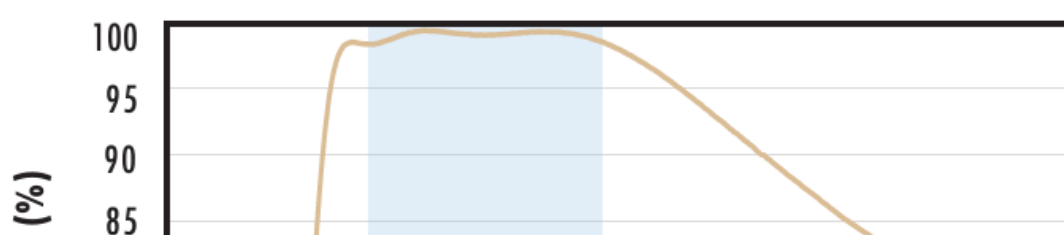
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{abs} \leq 0.25\%$ @ 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](#)

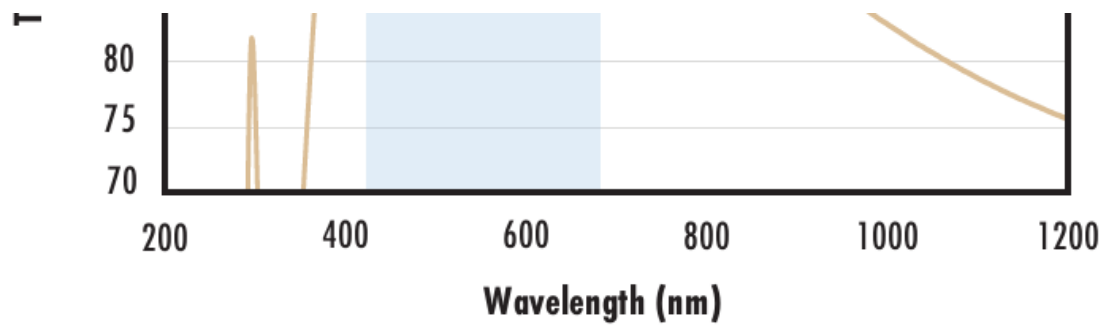
Fused Silica with VIS 0° Coating Typical Transmission



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 wavelength range, with the following specification:

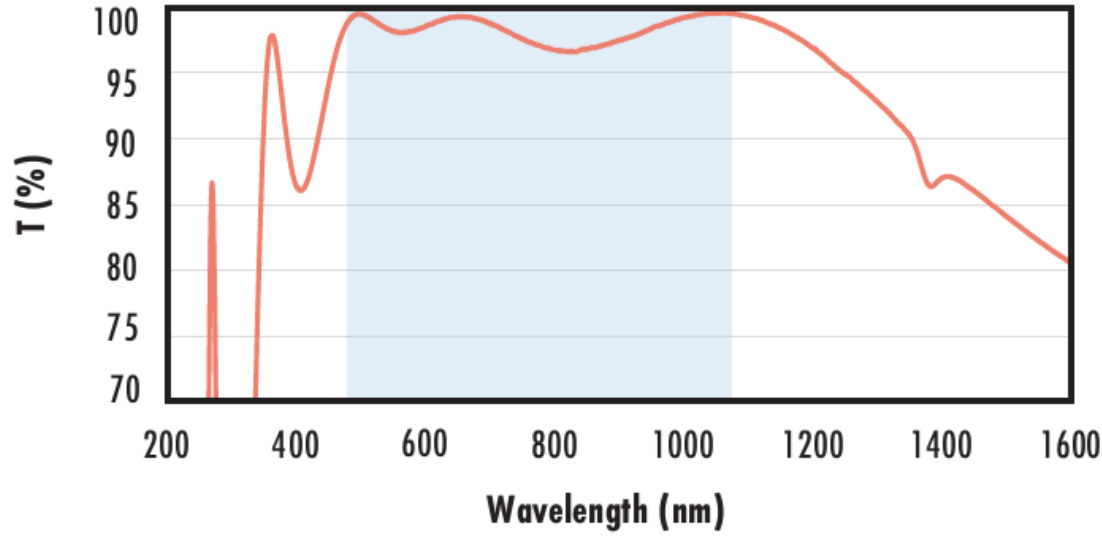
- $R_{avg} \leq 0.4\%$ @ 425 - 675nm



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

[Click Here to Download Data](#)

**Fused Silica with YAG-BBAR Coating
Typical Transmission**



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

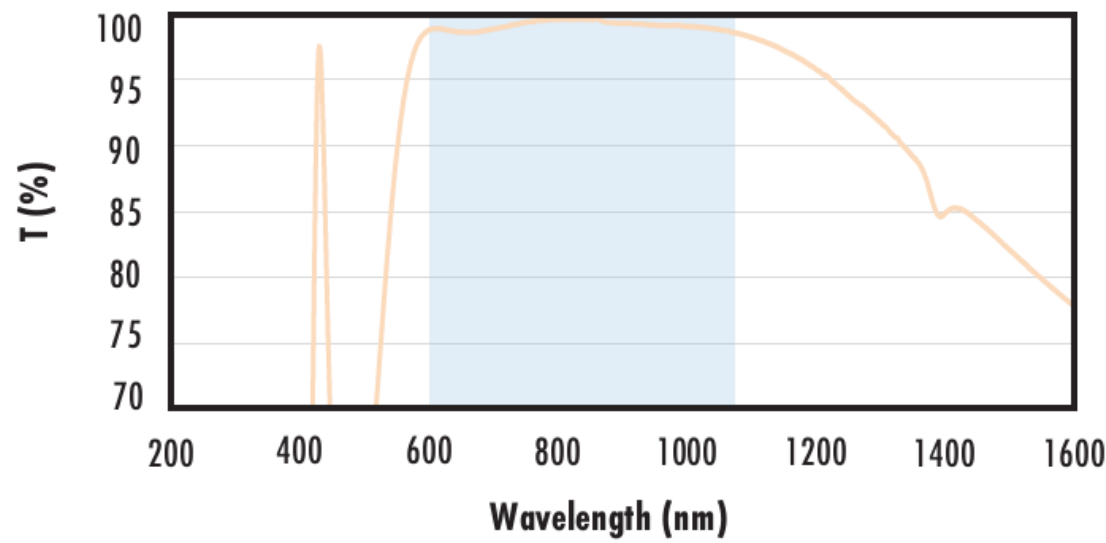
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

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



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

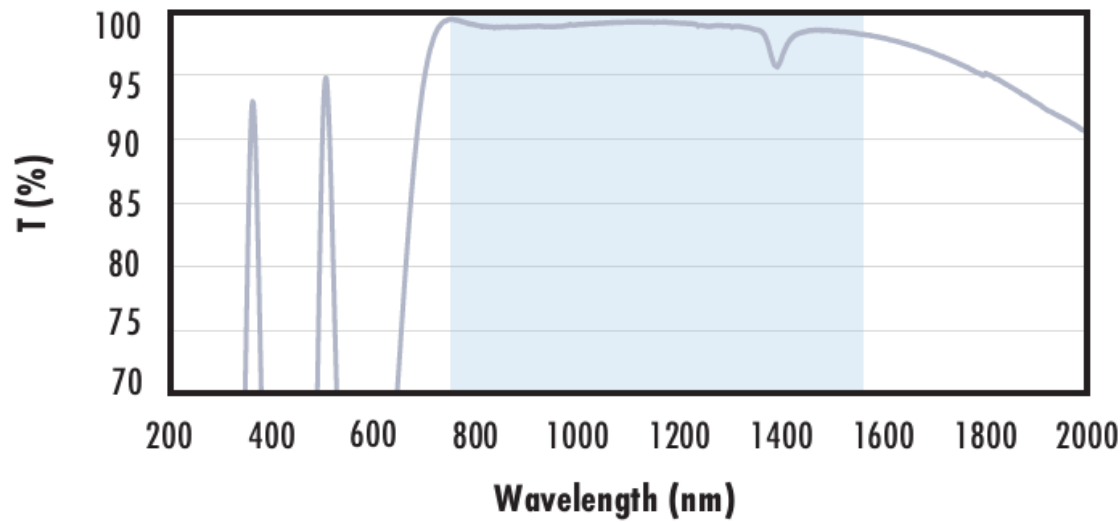
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

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



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 wavelength 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](#)

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

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

COMPATIBLE MOUNTS
