

**TECHSPEC® 50mm Dia. x 100mm FL, VIS-NIR Coated, UV Double-Convex Lens**



UV Fused Silica Double-Convex (DCX) Lenses



Stock **#26-621** [CONTACT US](#)

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⊖ 1 ⊕ ₹24,990

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Volume Pricing	
Qty 1-5	₹24,990 each
Qty 6-25	₹20,007 each
Qty 26-49	₹18,762 each
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**SPECIFICATIONS**

General

Double-Convex Lens

Type:

## Physical & Mechanical Properties

50.00 +0.0/-0.025 **Diameter (mm):**

<1 **Centering (arcmin):**

Protective as needed **Bevel:**

8.25 ±0.10 **Center Thickness CT (mm):**

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

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

## Optical Properties

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

100.00 **Effective Focal Length EFL (mm):**

VIS-NIR (400-1000nm) **Coating:**

**Coating Specification:**  
R<sub>abs</sub> ≤0.25% @ 880nm  
R<sub>avg</sub> ≤1.25% @ 400 - 870nm  
R<sub>avg</sub> ≤1.25% @ 890 - 1000nm

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

40-20 **Surface Quality:**

1.5λ **Power (P-V) @ 632.8nm:**

λ/4 **Irregularity (P-V) @ 632.8nm:**

90.38 **Radius R<sub>1</sub>=R<sub>2</sub> (mm):**

2.00 **f#:**

587.6 **Focal Length Specification Wavelength (nm):**

±1 **Focal Length Tolerance (%):**

0.25 **Numerical Aperture NA:**

400 - 1000 **Wavelength Range (nm):**

5 J/cm<sup>2</sup> @ 532nm, 10ns **Damage Threshold, Reference:**

## Regulatory Compliance

**Compliant** **RoHS 2015:**

**View** **Certificate of Conformance:**

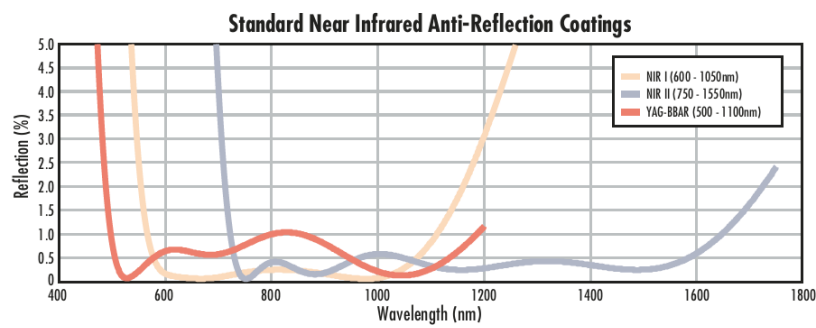
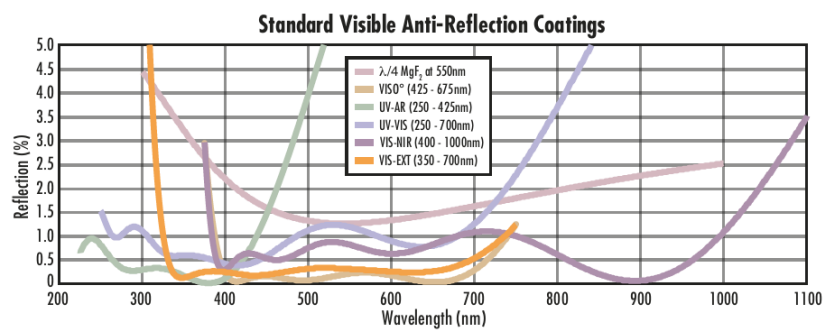
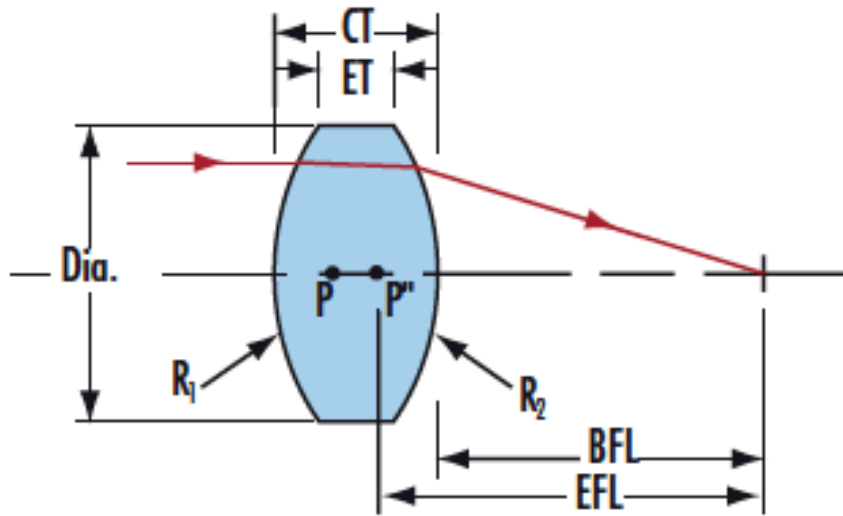
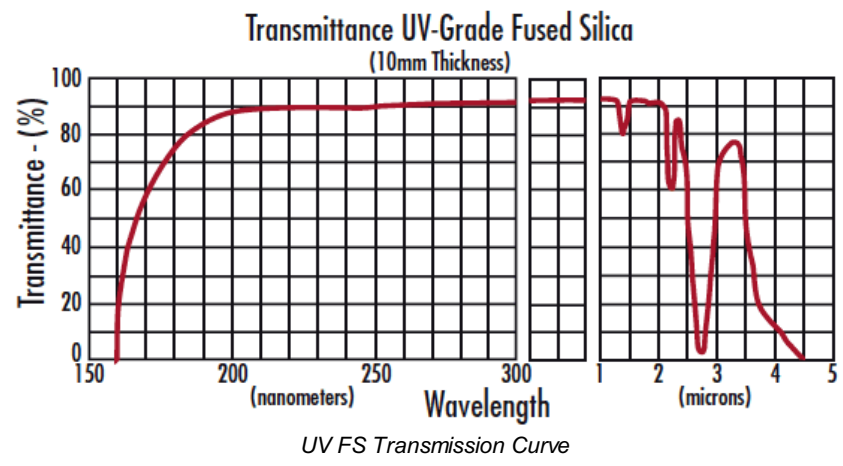
**Compliant** **Reach 235:**

## PRODUCT DETAILS

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

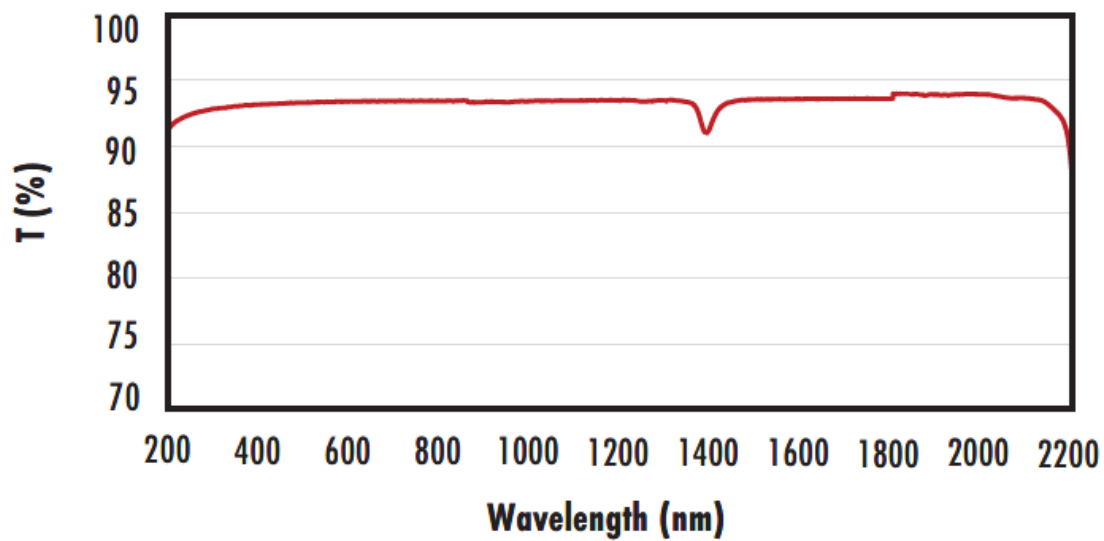
TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) 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



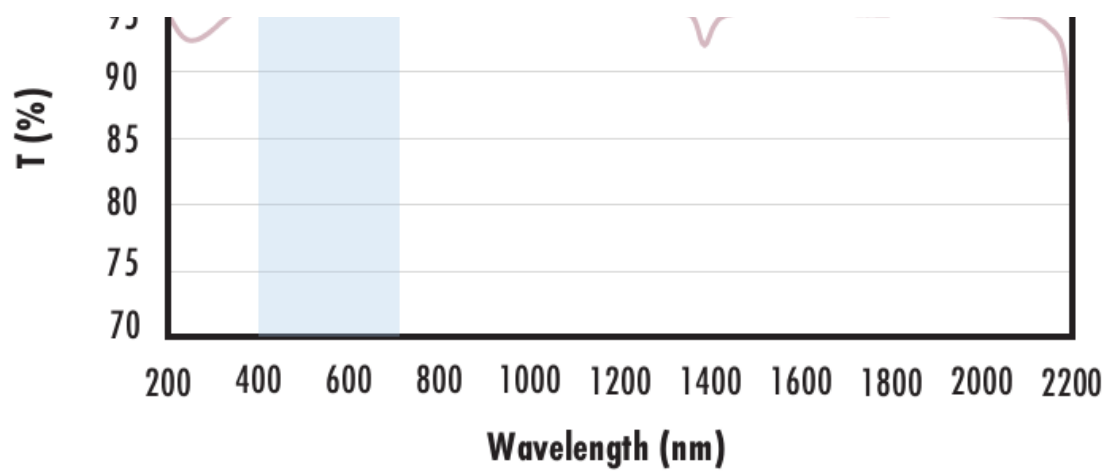
Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.

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### Fused Silica with MgF<sub>2</sub> Coating Typical Transmission

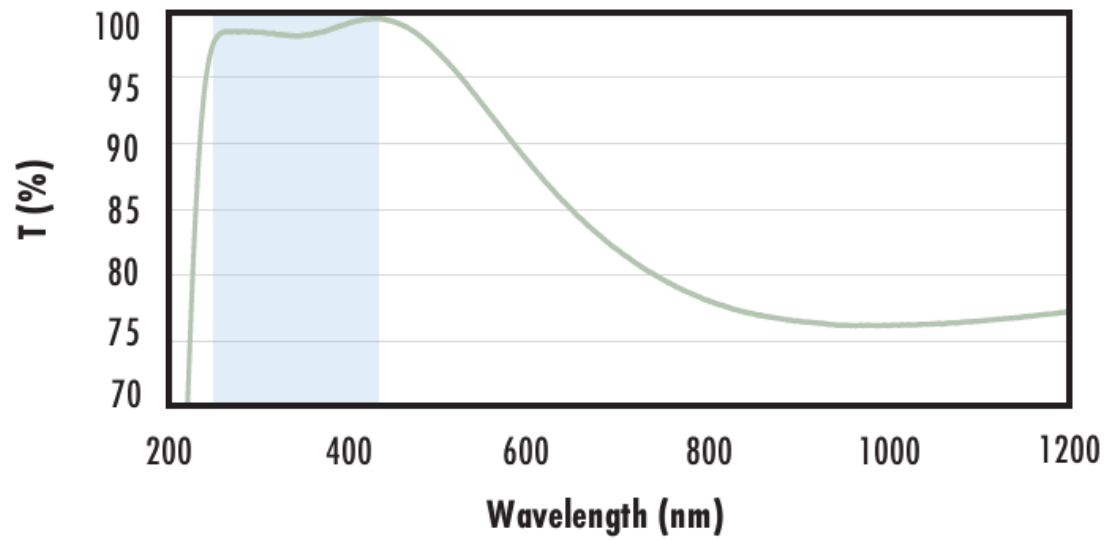


Typical transmission of a 3mm thick fused silica window with



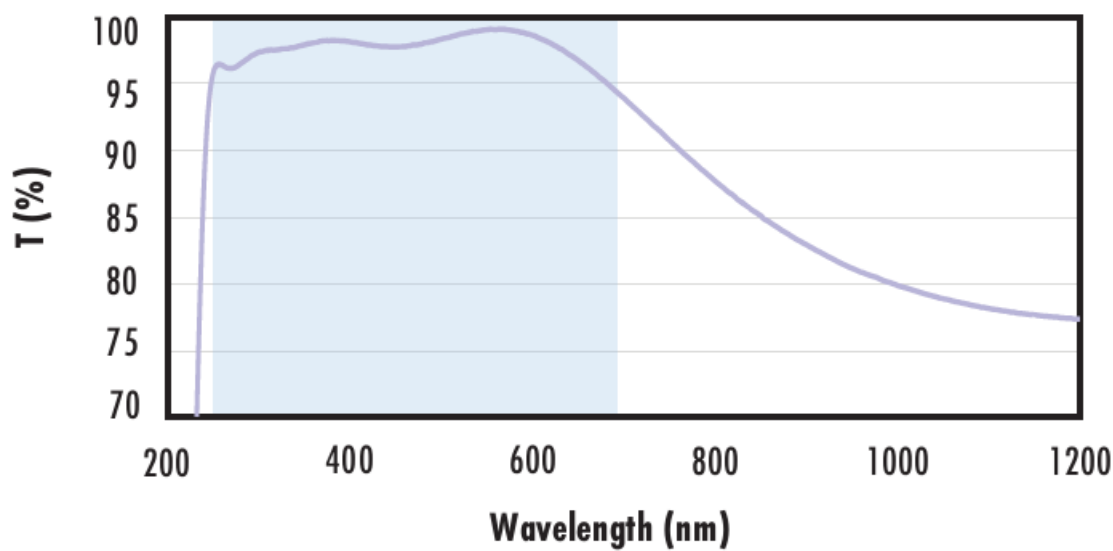
MgF2 (400-700nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$  (N-BK7)  
 Data outside this range is not guaranteed and is for reference only.  
[Click Here to Download Data](#)

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



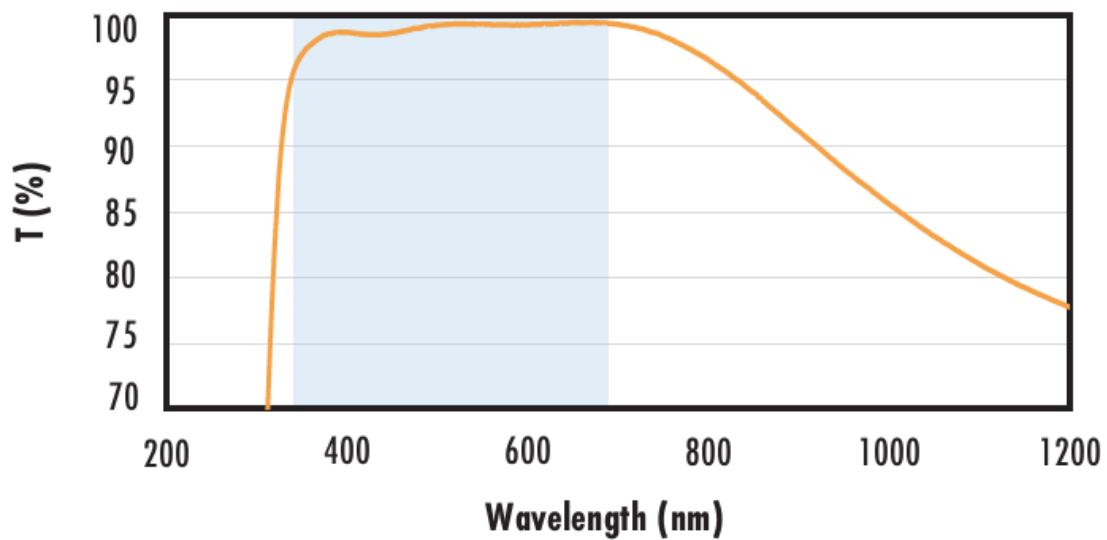
Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$   
 $R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$   
 $R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$   
 Data outside this range is not guaranteed and is for reference only.  
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### Fused Silica with UV-VIS Coating Typical Transmission



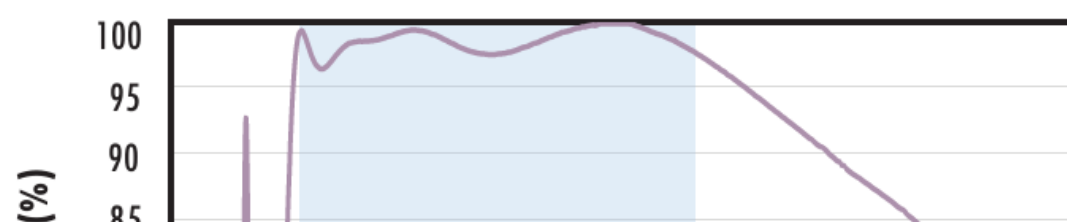
Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$   
 $R_{avg} \leq 1.5\% @ 250 - 700\text{nm}$   
 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

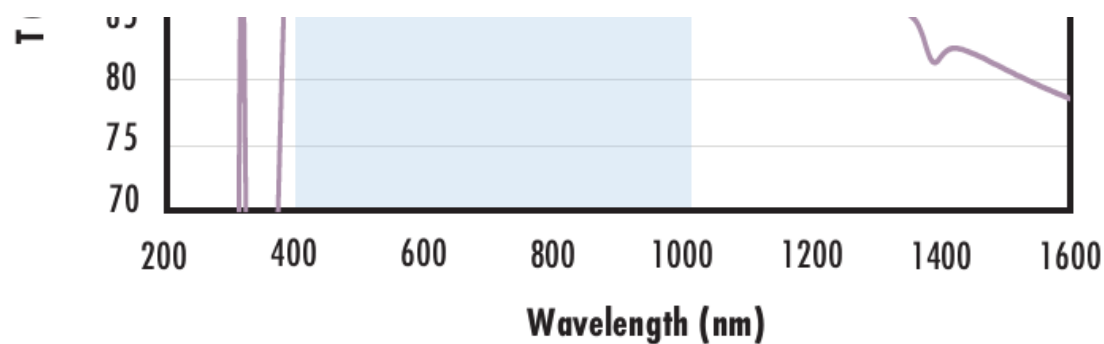


Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$   
 Data outside this range is not guaranteed and 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:  
 $R_{abs} \leq 0.25\% @ 880\text{nm}$   
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$

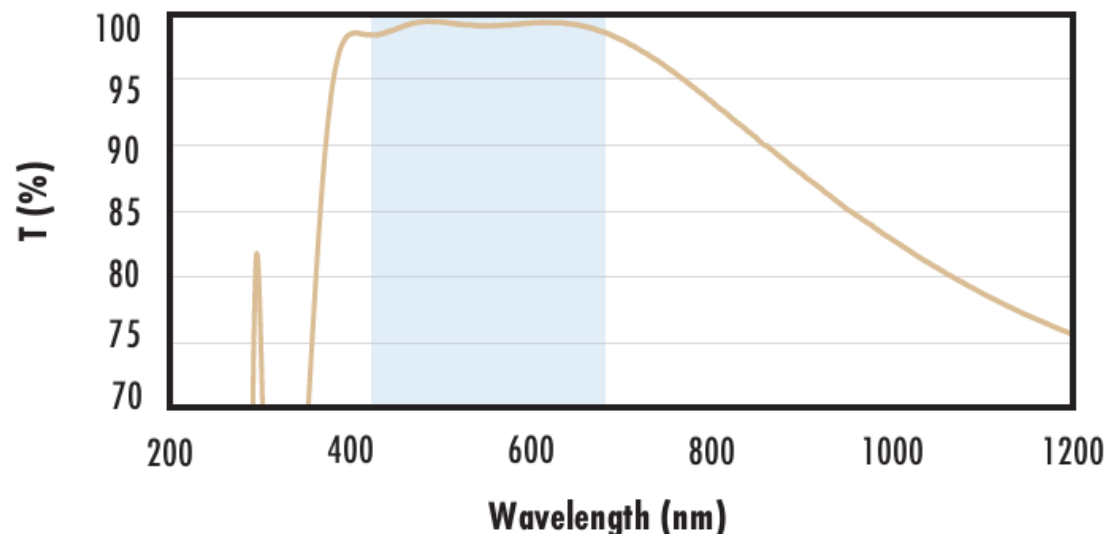


$R_{avg} \leq 1.25\% @ 890 - 1000nm$

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.

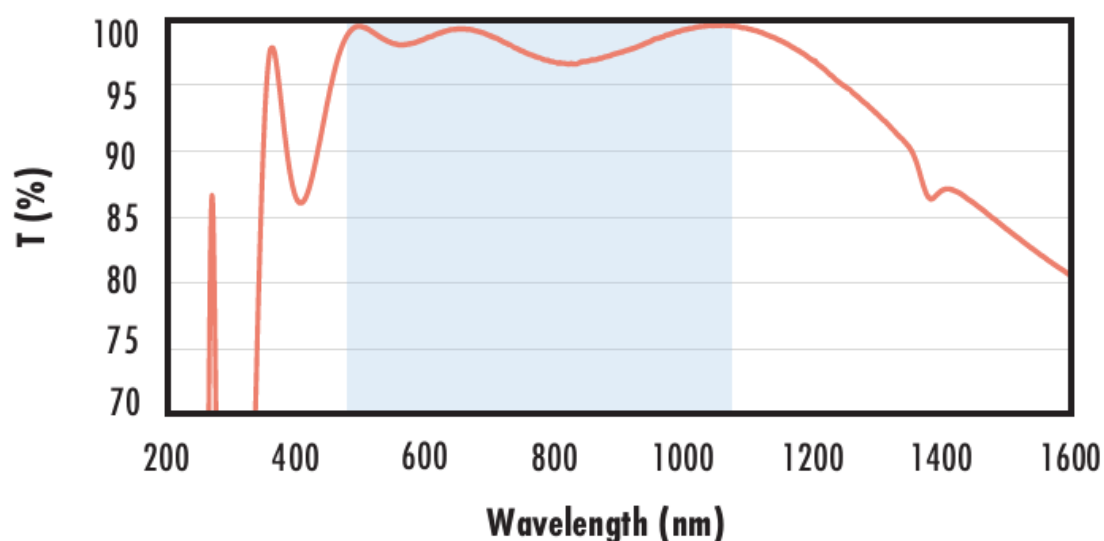
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

$R_{abs} \leq 0.25\% @ 532nm$

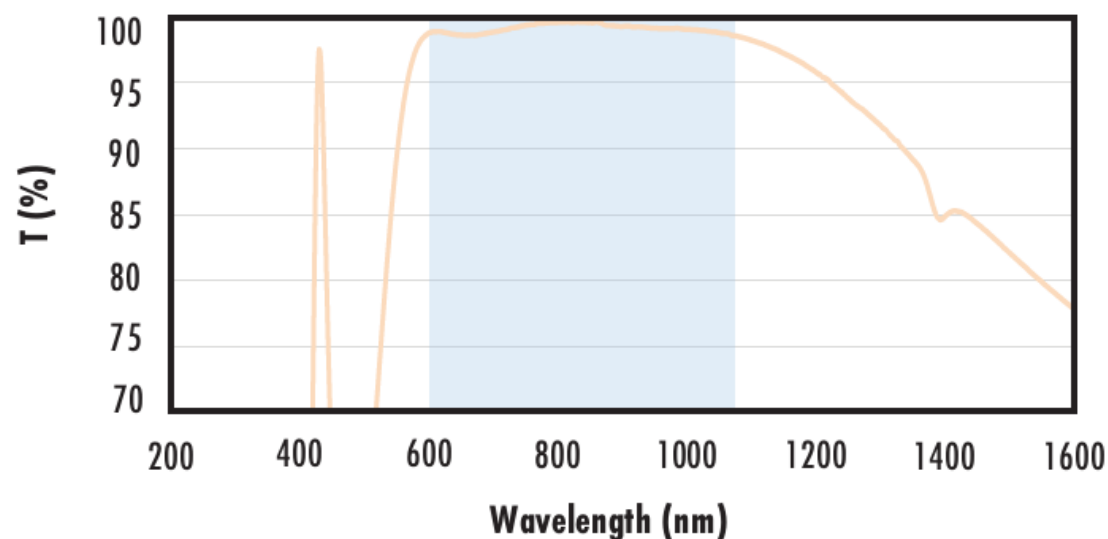
$R_{abs} \leq 0.25\% @ 1064nm$

$R_{avg} \leq 1.0\% @ 500 - 1100nm$

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.

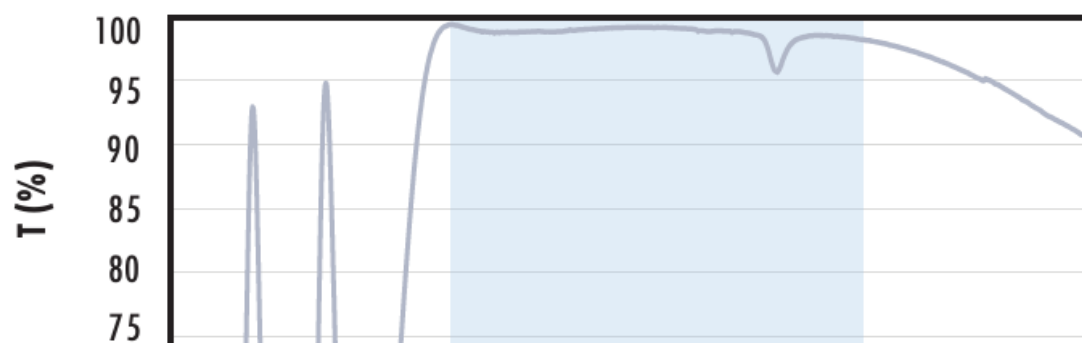
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

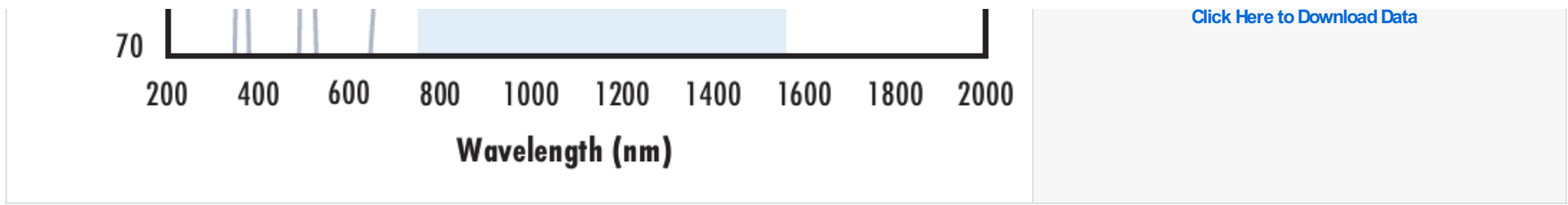
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 1.5\% @ 750 - 800nm$

$R_{abs} \leq 1.0\% @ 800 - 1550nm$

$R_{avg} \leq 0.7\% @ 750 - 1550nm$

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



## 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](#).