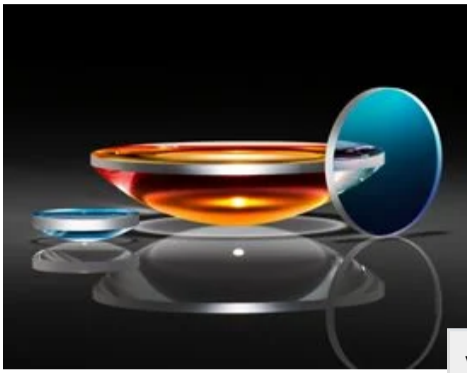


[All Products](#) / [Optics](#) / [Optical Lenses](#) / [Plano-Convex \(PCX\) Lenses](#)  
 / [Fused Silica Plano-Convex \(PCX\) Lenses](#)  
 / [UV Fused Silica Plano-Convex \(PCX\) Lenses - UV-AR Coated](#)

[« See all 75 Products in Family](#)

**TECHSPEC®**

# 50mm Dia. x 75mm FL UV-AR Coated, UV Plano-Convex Lens



Stock #67-218 **9 In Stock**

1

C\$484<sup>.40</sup>

**ADD TO CART**

UV Fused Silica Plano-Convex (PCX) Lenses



Volume Pricing	
Qty 1-5	C\$484.40 each
Qty 6-25	C\$387.80 each
Qty 26-49	C\$362.60 each
Need More?	<a href="#">Request Quote</a>

Product Downloads	
STEP:stp	Curve:pdf
PDF Drawing:pdf	
ISO 10110 Drawing	
IGES:igs	Zemax:zar
Zemax:zmx	eDrawing:eprt
Code V:seq	EO Spec Sheet
<a href="#">Download All</a>	

## General

**Type:** Plano-Convex Lens

## Physical & Mechanical Properties

<b>Diameter (mm):</b> 50.00 +0.0/-0.025	<b>Centering (arcmin):</b> <1
<b>Center Thickness CT (mm):</b> 12.50 ±0.10	<b>Edge Thickness ET (mm):</b> 1.72
<b>Clear Aperture CA (mm):</b> 49	<b>Bevel:</b> Protective as needed

## Optical Properties

<b>Effective Focal Length EFL (mm):</b> 75.00 @ 587.6nm	<b>Back Focal Length BFL (mm):</b> 66.43
<b>Coating:</b> UV-AR (250-425nm)	<b>Coating Specification:</b> R <sub>abs</sub> ≤1.0% @ 250 - 425nm R <sub>avg</sub> ≤0.75% @ 250 - 425nm R <sub>avg</sub> ≤0.5% @ 370 - 420nm
<b>Substrate:</b> <a href="#">Fused Silica</a> (Corning 7980)	<b>Surface Quality:</b> 40-20
<b>Power (P-V) @ 632.8nm:</b> 1.5λ	<b>Irregularity (P-V) @ 632.8nm:</b> λ/4
<b>Focal Length Tolerance (%):</b> ±1	<b>Radius R<sub>1</sub> (mm):</b> 34.39
<b>f/#:</b> 1.5	<b>Numerical Aperture NA:</b> 0.33

**Wavelength Range (nm):** 250 - 425

**Damage Threshold, Reference:** 3 J/cm<sup>2</sup> @ 355nm, 10ns [i](#)

## 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](#).

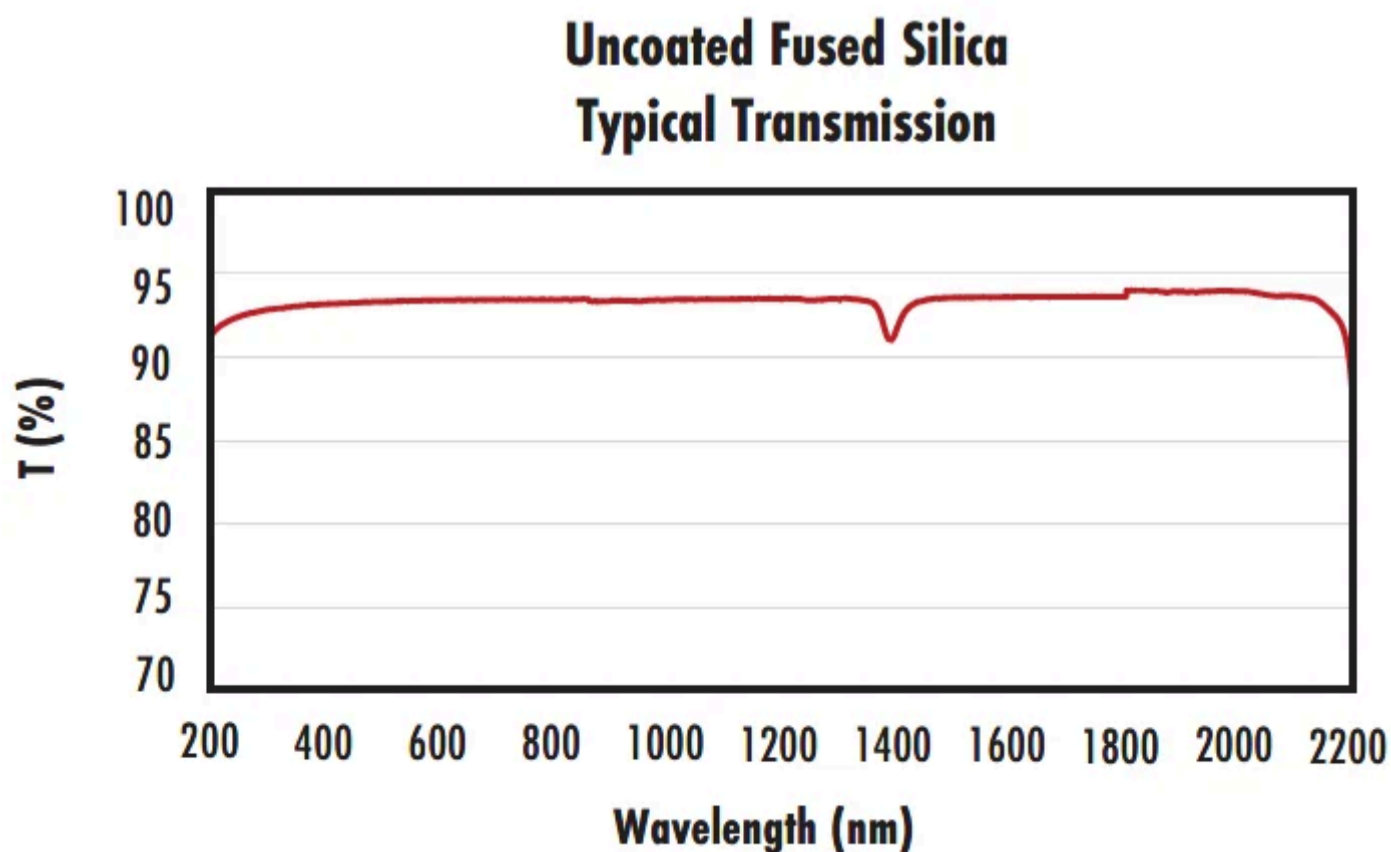
## Product Details

- AR Coated to Provide <0.75% Reflection per Surface for 250 - 425nm
- Precision Fused Silica Substrate
- Various Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [UV-VIS](#), [VIS-EXT](#), [VIS-NIR](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses UV-AR 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 UV-AR Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are UV-AR coated to increase their coating performance in the ultraviolet region.

## Technical Information

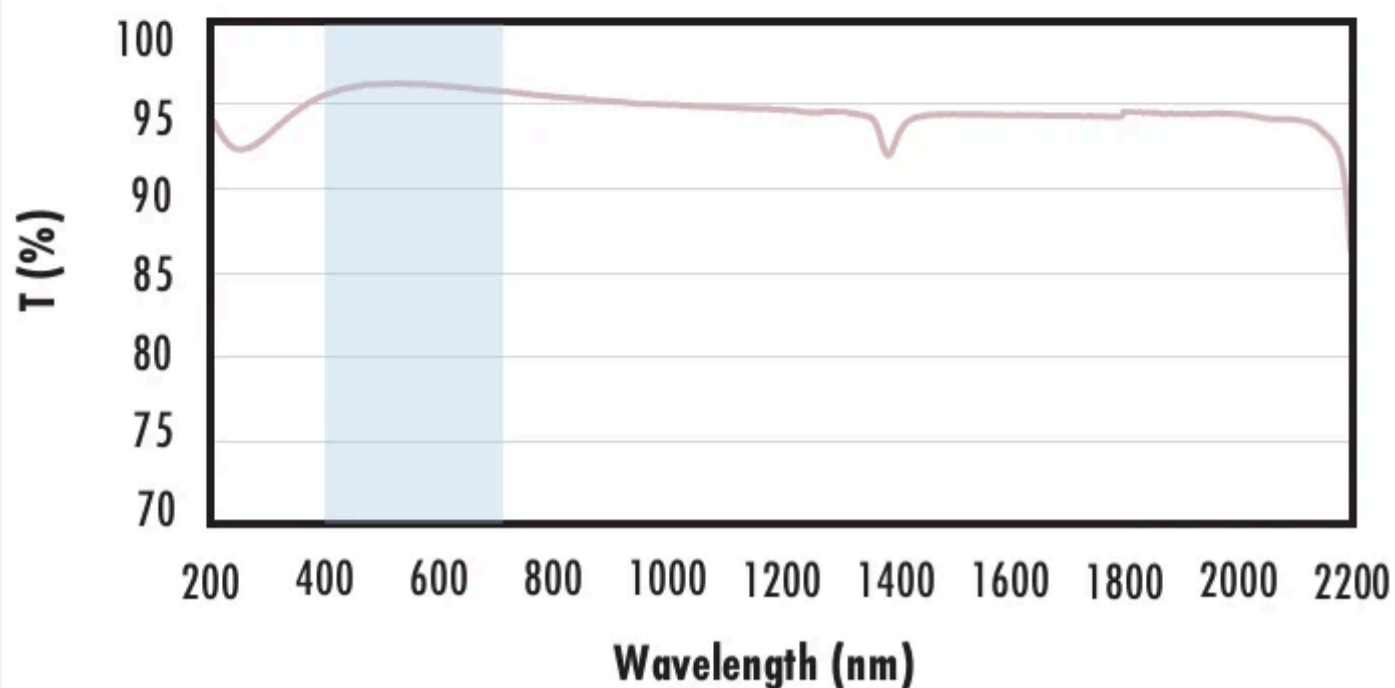
UV FS Transmission Curve



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

[Click Here to Download Data](#)

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



Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

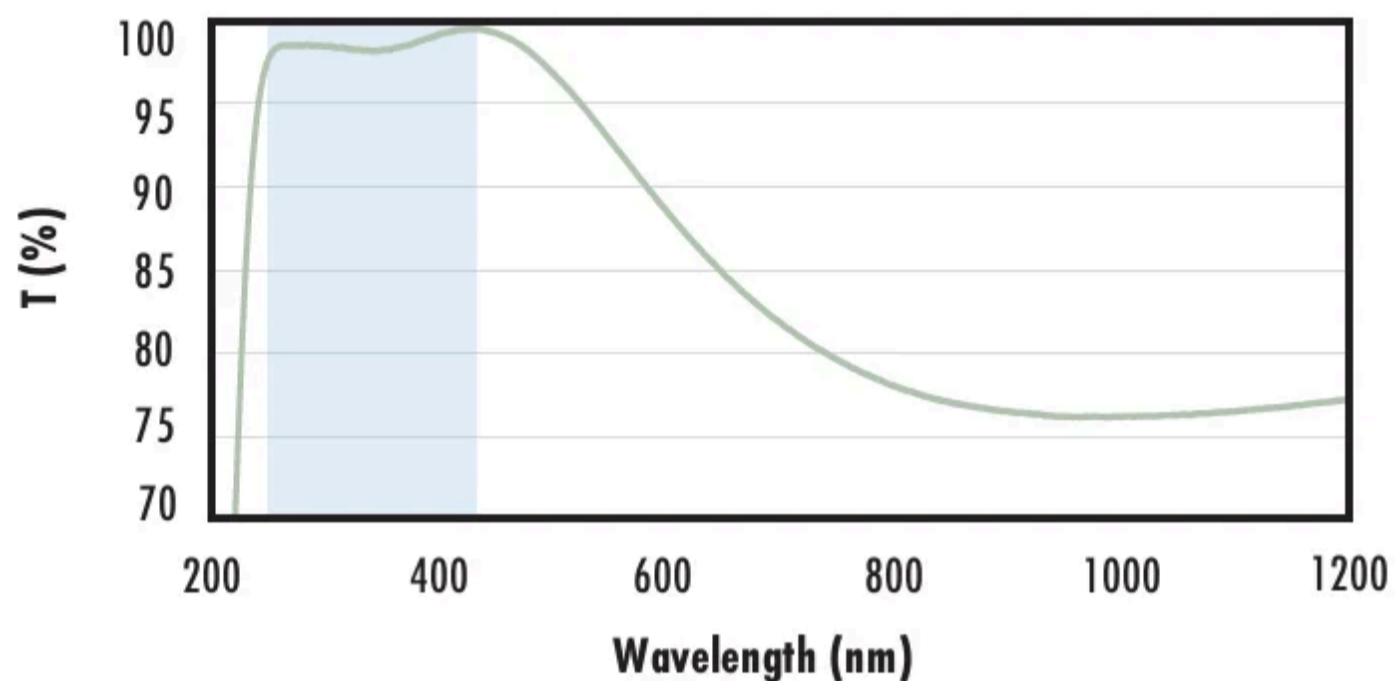
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

$$R_{abs} \leq 1.0\% \text{ @ } 250 - 425\text{nm}$$

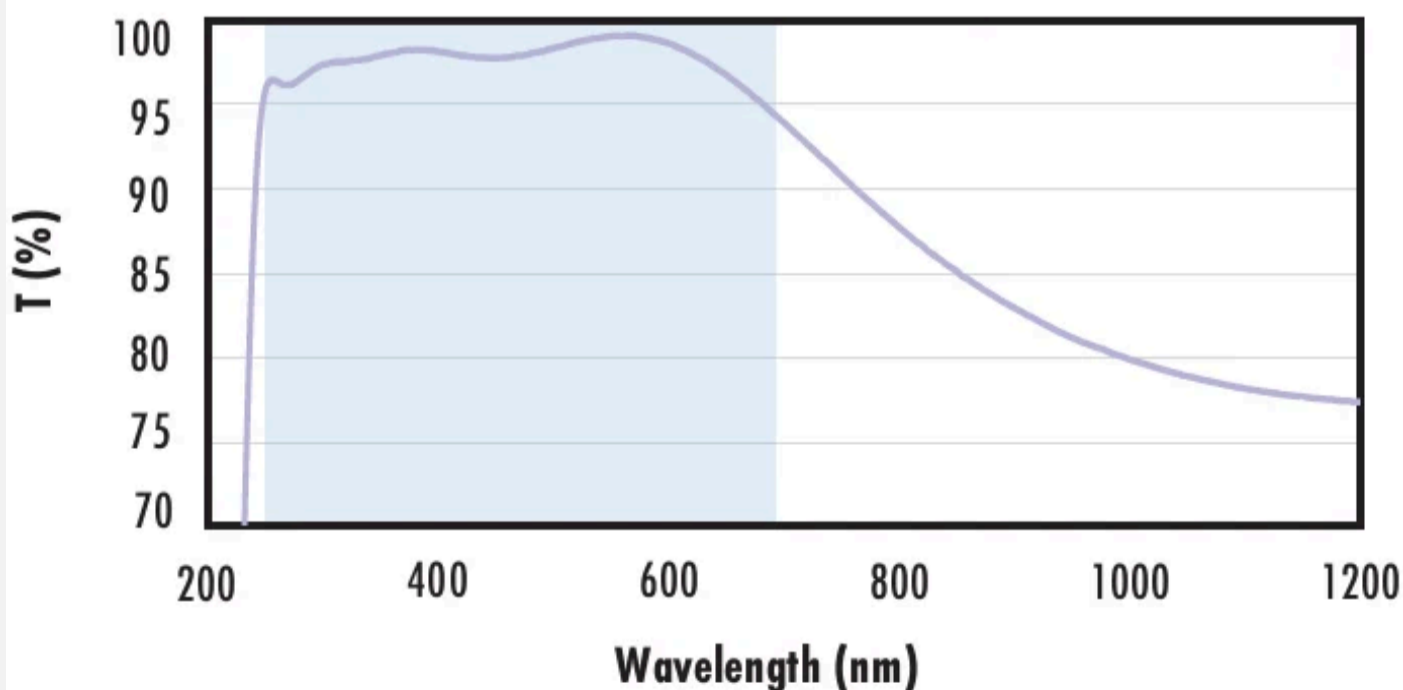
$$R_{avg} \leq 0.75\% \text{ @ } 250 - 425\text{nm}$$

$$R_{avg} \leq 0.5\% \text{ @ } 370 - 420\text{nm}$$

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:

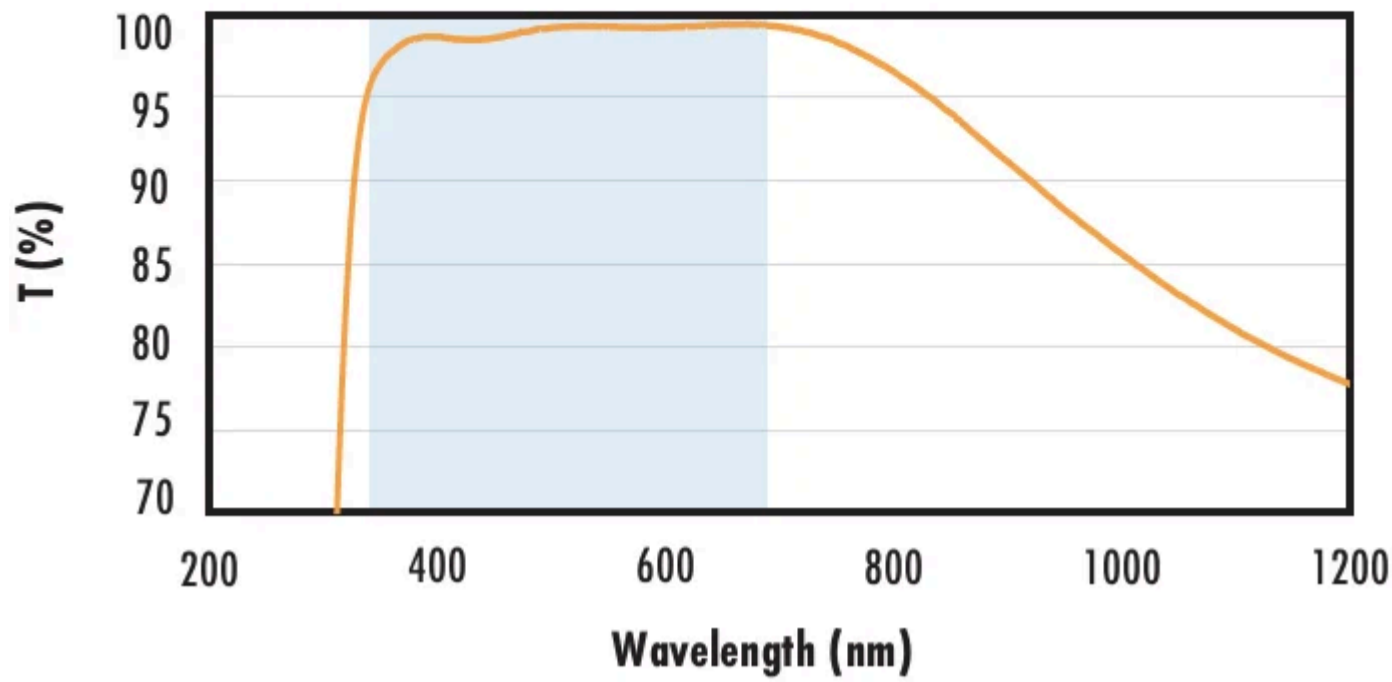
$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

$$R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}$$

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.

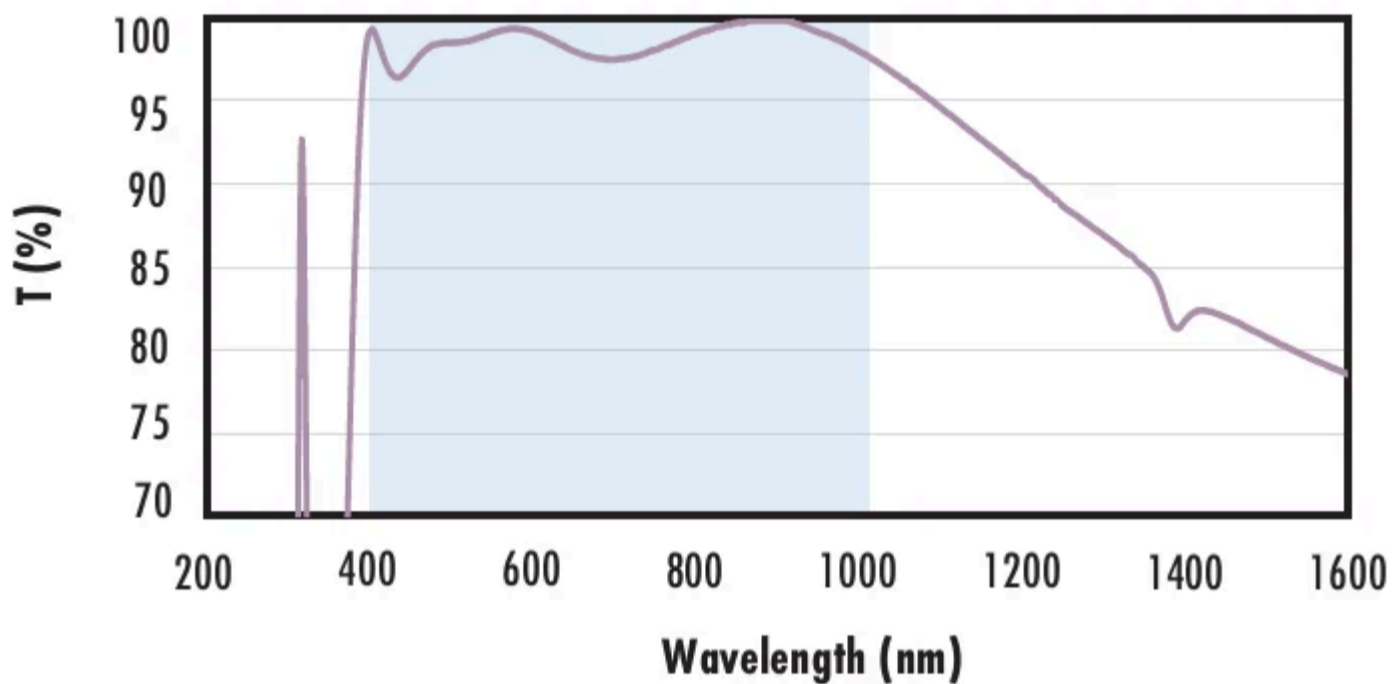
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

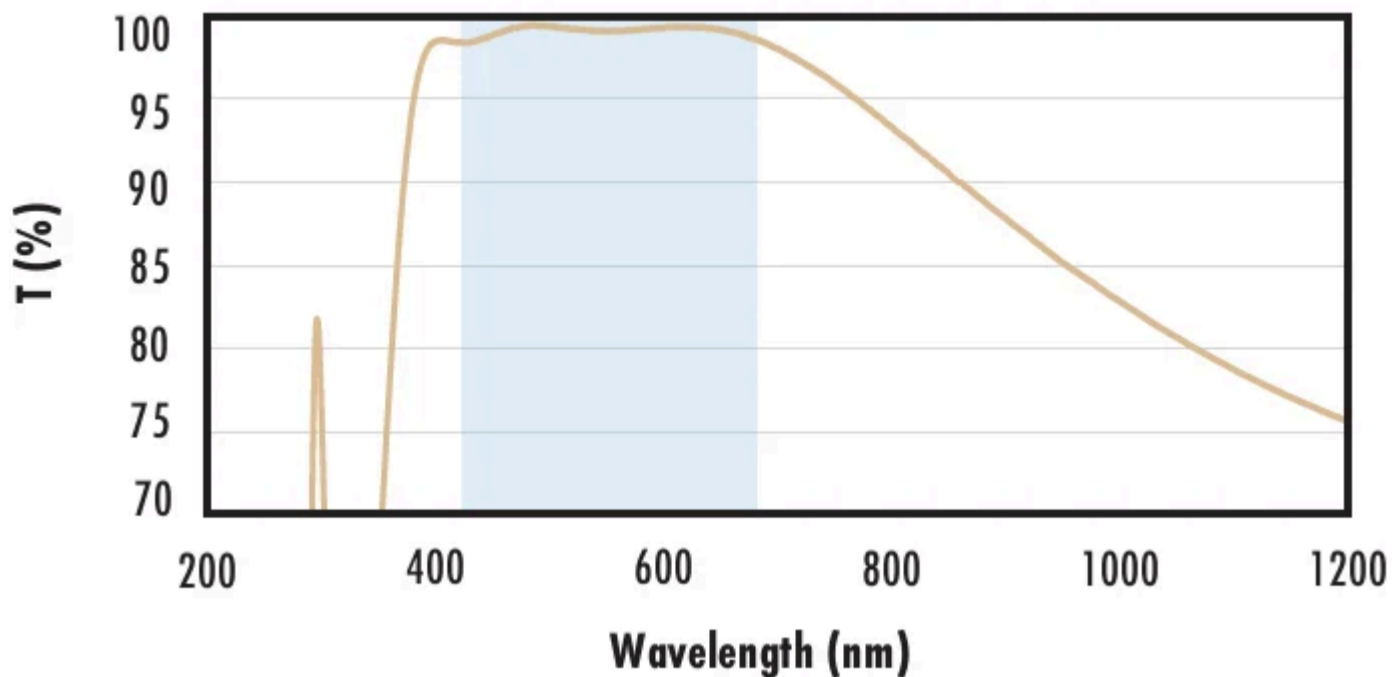
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

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

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.

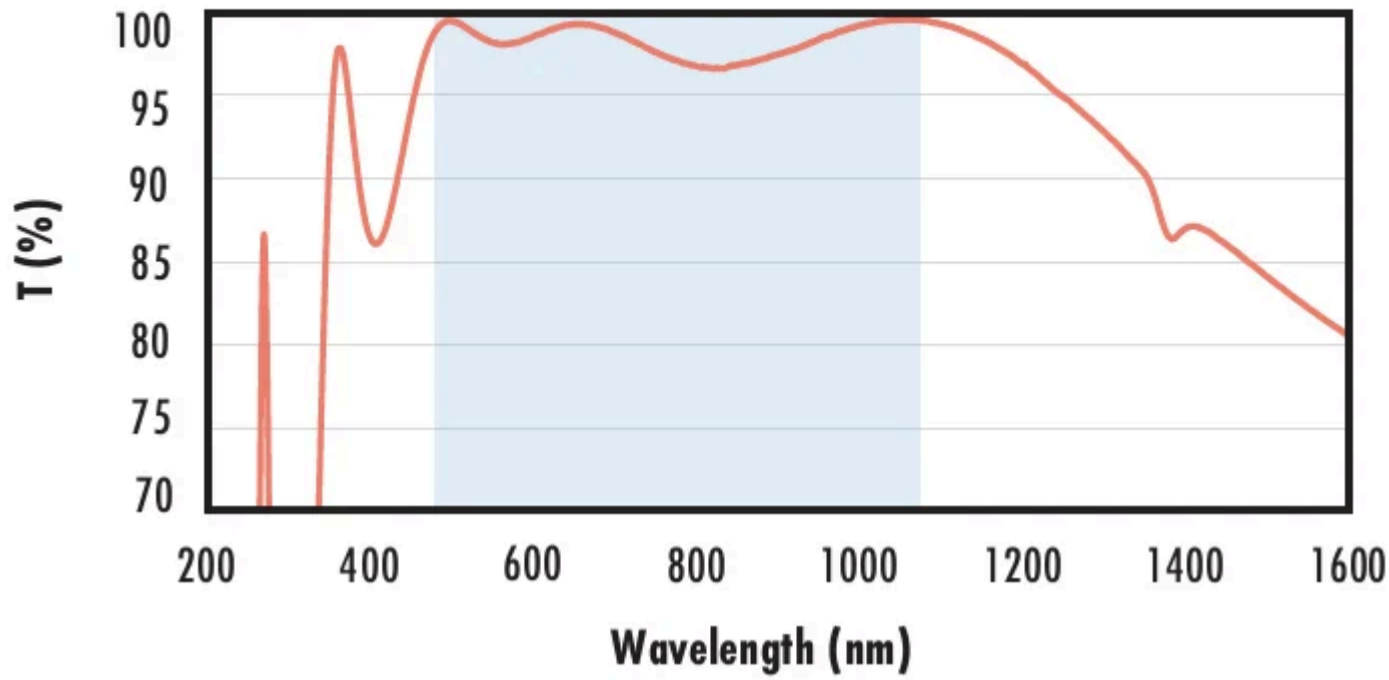
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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



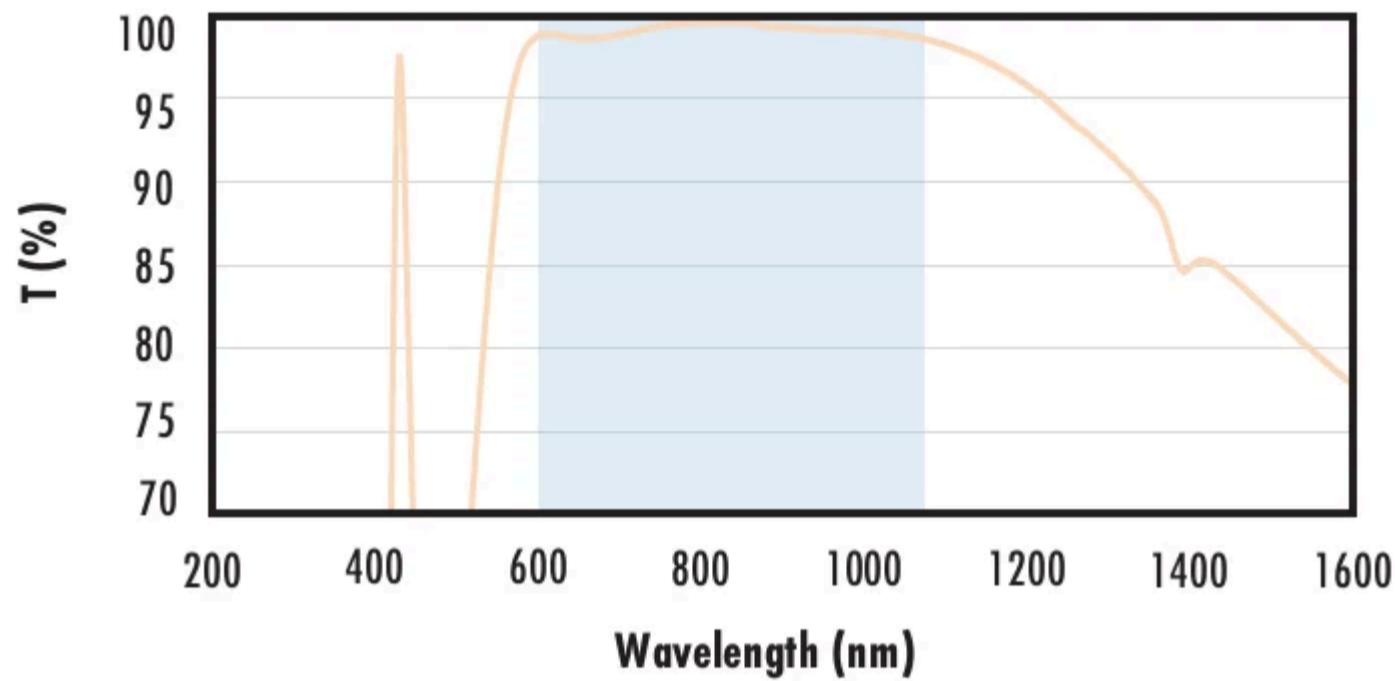
Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.  
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{abs} \leq 0.25\%$  @ 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.

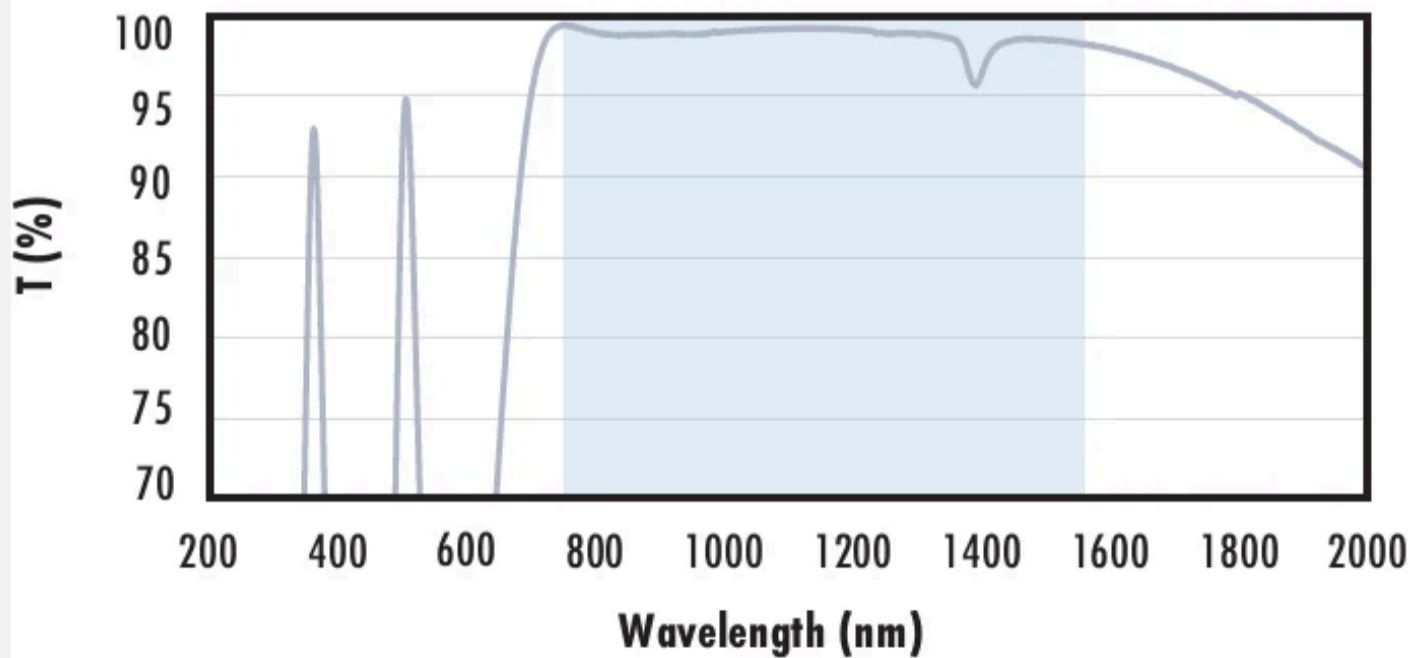
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

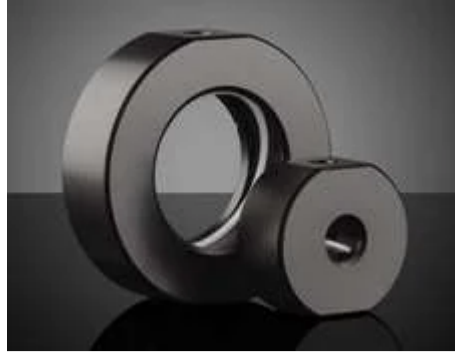
Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

**Related Products**



C, S, and T-Mount Circular Optic Mounts



Optic Component Mounts



Basic and Plus Optical Component Cleaning Kits



UV Fused Silica Aspheric Lenses

## Frequently Purchased Together



#39-481 - 25.4mm Clear Aperture 50R/50T, Pellicle Beamsplitter  
C\$435.40

Qty



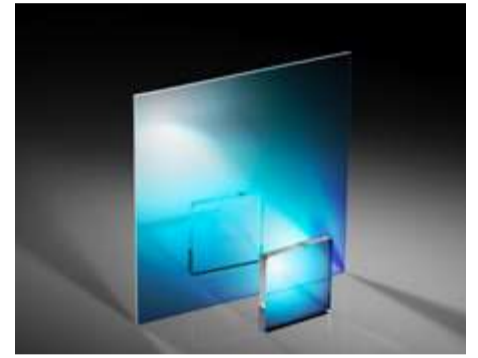
#43-987 - 27mm Diameter x 13mm FL, Aspheric Condenser Lens  
C\$79.10

Qty



#46-308 - 6.0mm Dia. x -9 FL, UV-AR Coated, UV Plano-Concave Lens  
C\$203.00

Qty



#46-642 - 75 x 75mm, 50R/50T, Plate Beamsplitter  
C\$191.80

Qty

## Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
	50.0/50.8mm Optic Dia., SM2 Thin Mount	Fixed		#17-716	C\$50.75 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
	50.0mm Optic Dia., Optic Mount	Fixed		#64-567	C\$68.95 <a href="#">Request Quote</a>	1 In Stock <input type="text" value="1"/>
	50.0mm Optic Dia., Optic Mount	Fixed		#64-568	C\$68.95 <a href="#">Request Quote</a>	7 In Stock <input type="text" value="1"/>
	50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-957	C\$431.20 <a href="#">Request Quote</a>	1 In Stock <input type="text" value="1"/>
	50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-960	C\$847.00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
	50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	C\$1,176.00 <a href="#">Request Quote</a>	10 In Stock <input type="text" value="1"/>

Check out our full selection of mounts [here](#).