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**TECHSPEC®**

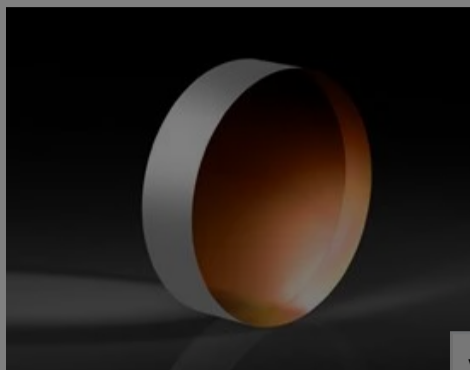
**50mm Dia., 2mm Thick**

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Select Your Country/Region: European Union

Submit

**Silica Window**



Stock #36-944 **1 In Stock**

1

€319<sup>.00</sup>

ADD TO CART

Volume Pricing	
Qty 1-5	€319,00 each
Qty 6-25	€255,00 each
Qty 26-49	€239,00 each
Need More?	<a href="#">Request Quote</a>

Product Downloads

- STEP:step
- PDF Drawing:pdf
- IGES:igs
- eDrawing:eprt
- EO Spec Sheet
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Prices shown are exclusive of VAT/local taxes

General

Type: Protective Window

Type of Window: Glass

Physical & Mechanical Properties

Clear Aperture CA (mm): 40.00

Diameter (mm): 50.00 +0.00/-0.20

Thickness (mm): 2.00 ±0.10

Dimensional Tolerance (mm): +0.00/-0.20

Bevel: Protective as needed

Clear Aperture (%): 80

Edges: Fine Ground

Parallelism (arcsec): <5

Poisson's Ratio: 0.16

Young's Modulus (GPa): 73

Knoop Hardness (kg/mm<sup>2</sup>): 522.00

Optical Properties

Coating: UV-VIS (250-700nm)

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

Index of Refraction (n<sub>d</sub>): 1.458

Surface Quality: 20-10

Transmitted Wavefront, P-V: λ/10

Abbe Number (v<sub>d</sub>): 67.8

<b>Coating Specification:</b>	R <sub>abs</sub> ≤1.0% @ 350 - 450nm R <sub>avg</sub> ≤1.5% @ 250 - 700nm	<b>Wavelength Range (nm):</b>	250 - 700
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<b>Damage Threshold, Reference:</b>	3 J/cm <sup>2</sup> @ 355nm, 10ns 5 J/cm <sup>2</sup> @ 532nm, 10ns
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## Material Properties

<b>Density (g/cm<sup>3</sup>):</b>	2.20	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>	0.52 (+5 to +35°C) 0.57 (0 to +200°C) 0.48 (-100 to +200°C)
<b>Fused Silica Grade:</b>	7980 0G		

## Regulatory Compliance

<b>RoHS 2015:</b>	<b>Compliant</b>	<b>Certificate of Conformance:</b>	<b>View</b>
<b>Reach 235:</b>	<b>Compliant</b>		

## 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

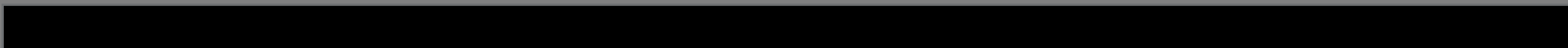
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

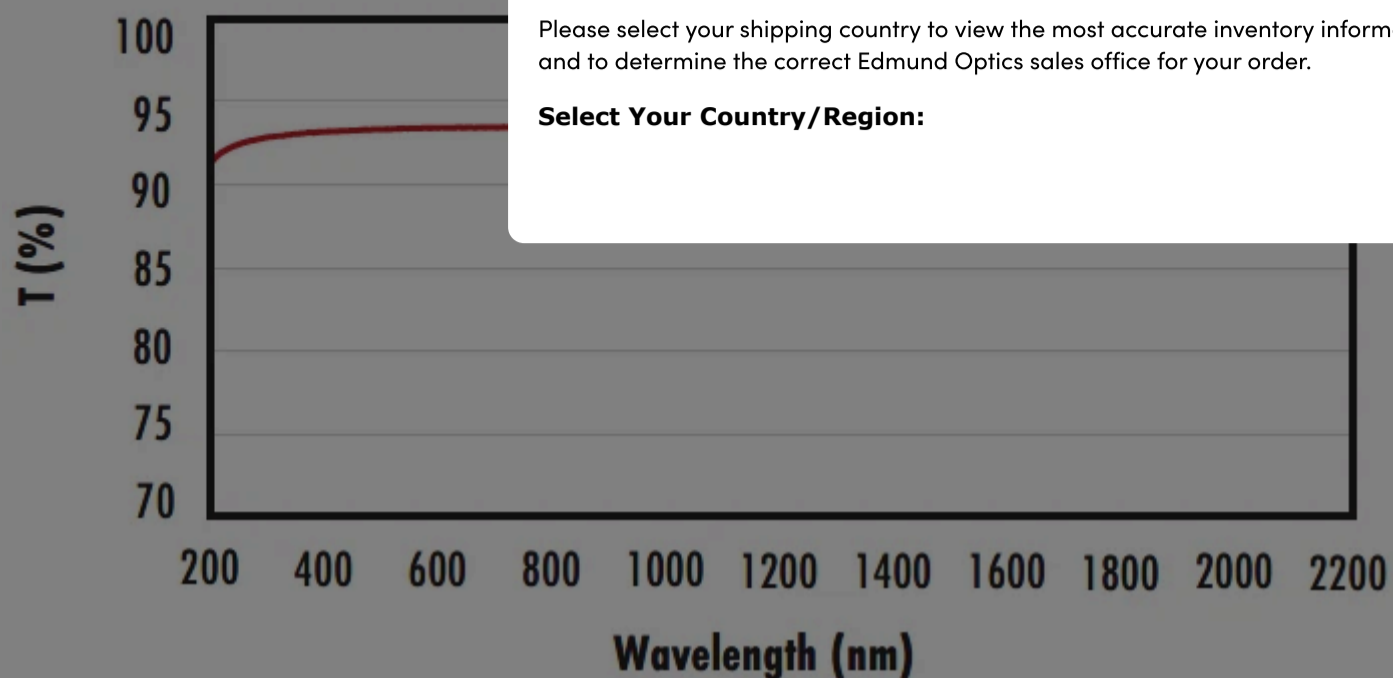
- UV, Visible, and NIR Anti-Reflection Coated Versions Available
- λ/10 Transmitted Wavefront Distortion
- Circular and Square Sizes from 2mm to 150mm
- **1λ** or **λ/4** UV Fused Silica Windows Also Available

TECHSPEC® λ/10 UV Fused Silica Windows feature laser-grade surface quality and parallelism. In addition, these windows will limit the transmitted wavefront distortion to λ/10. The superior transmission characteristics, excellent thermal properties, and high tolerance manufacturing specifications make these windows an excellent choice for more demanding applications. TECHSPEC λ/10 UV Fused Silica Windows are available for purchase in circular and square sizes ranging from 2mm to 150mm.. These windows are offered uncoated or with anti-reflection coatings optimized for the UV or visible spectrum.

## Technical Information



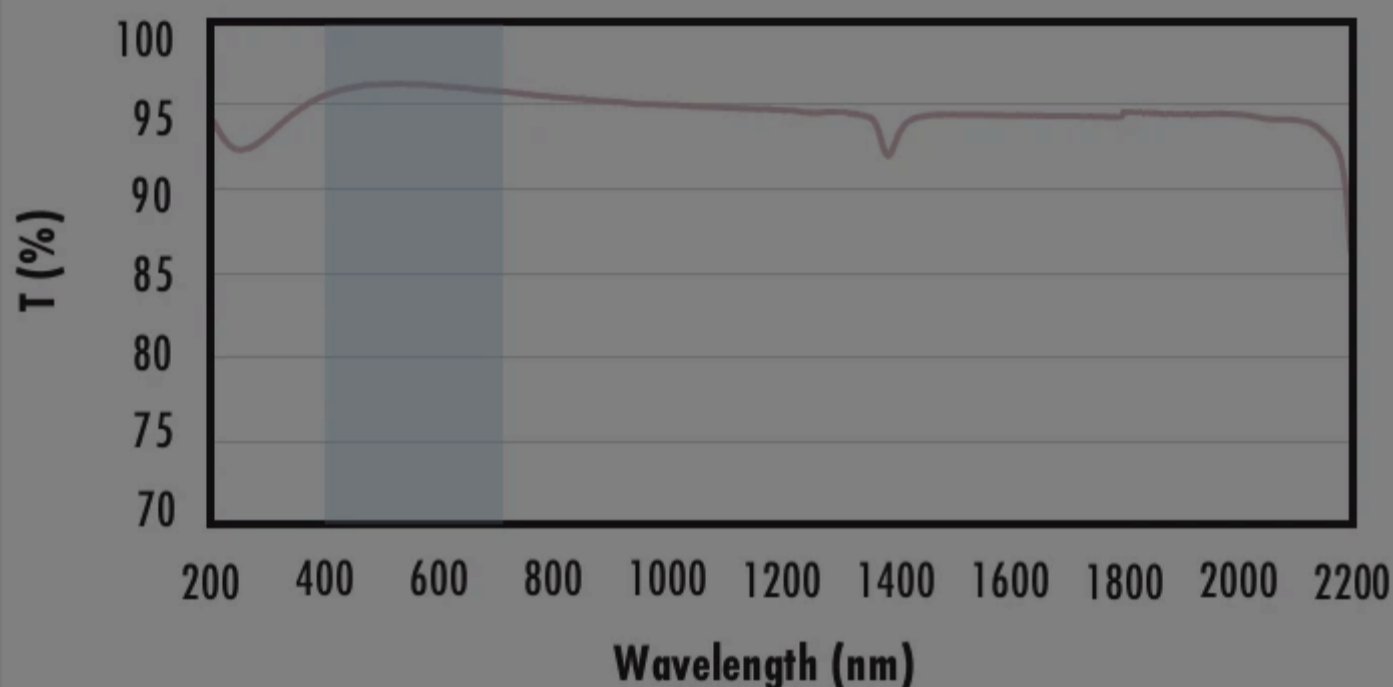
## Uncoated Fused Silica Typical Transmission



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

[Click Here to Download Data](#)

## Fused Silica with 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.

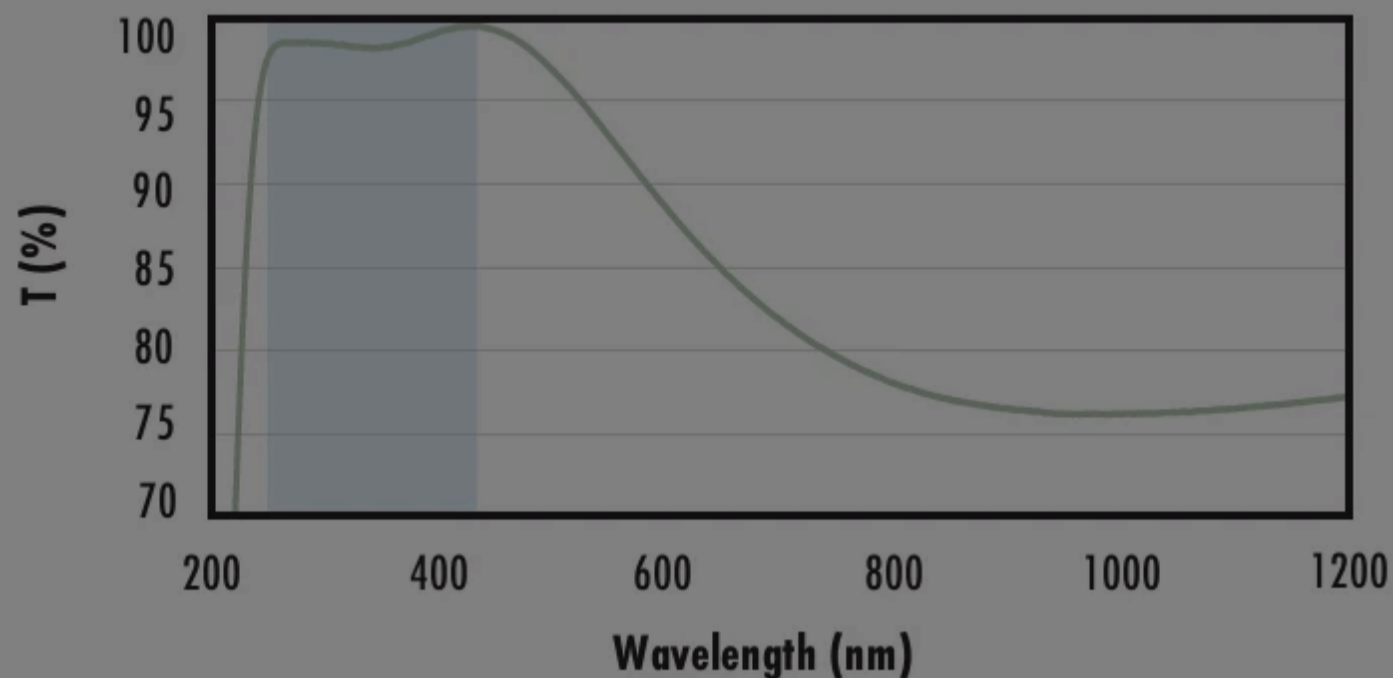
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

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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:

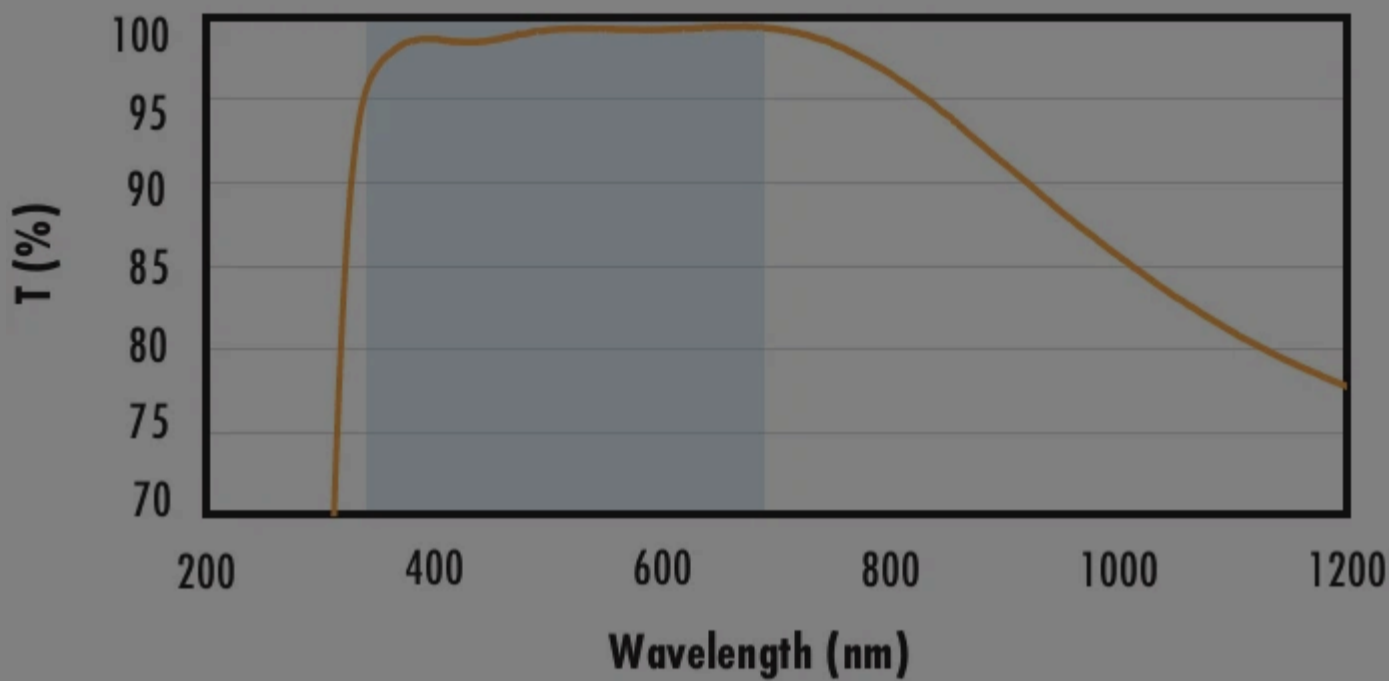
$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

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

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.

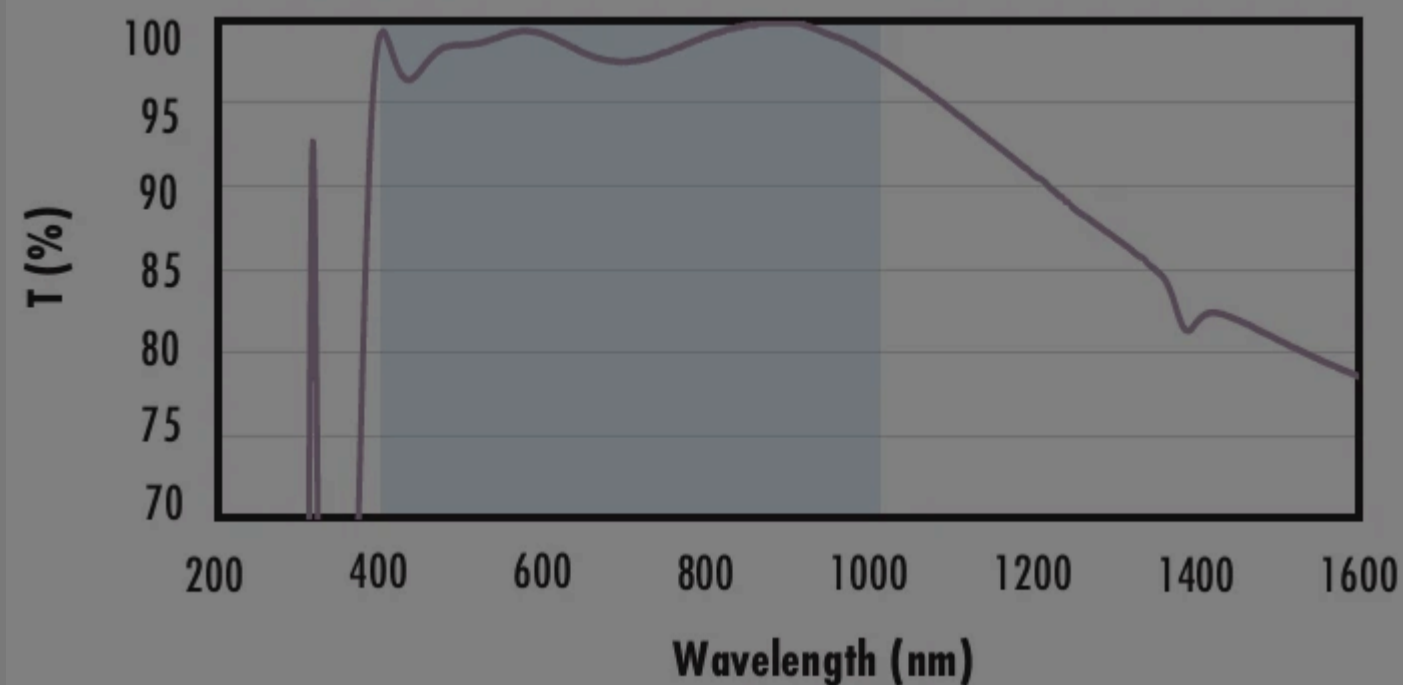
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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## 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:

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

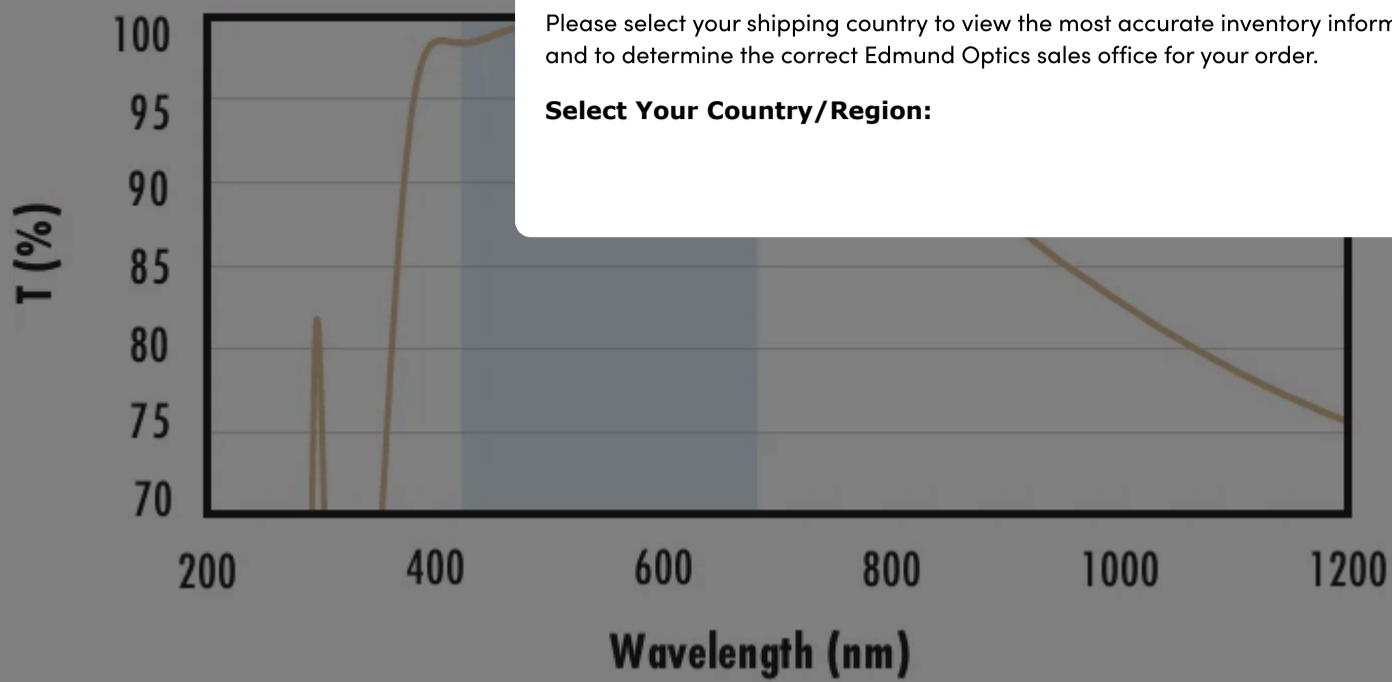
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

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

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.

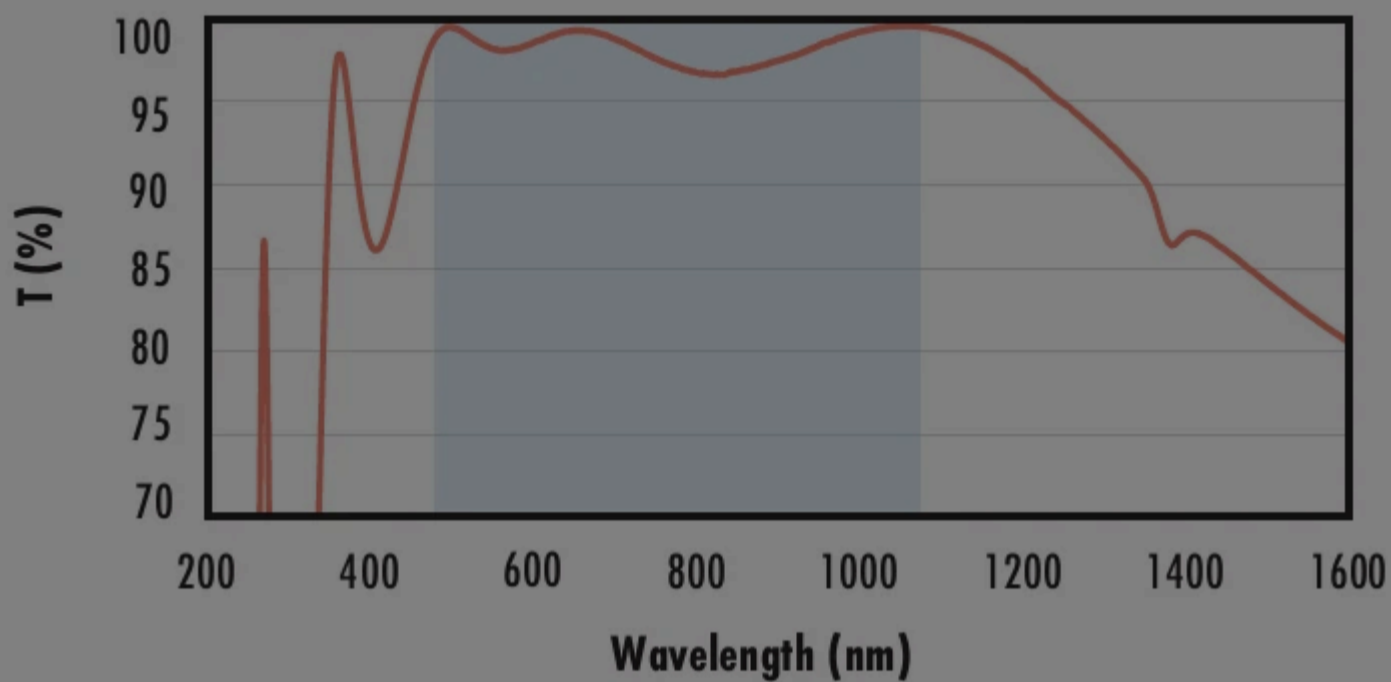
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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## 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:

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

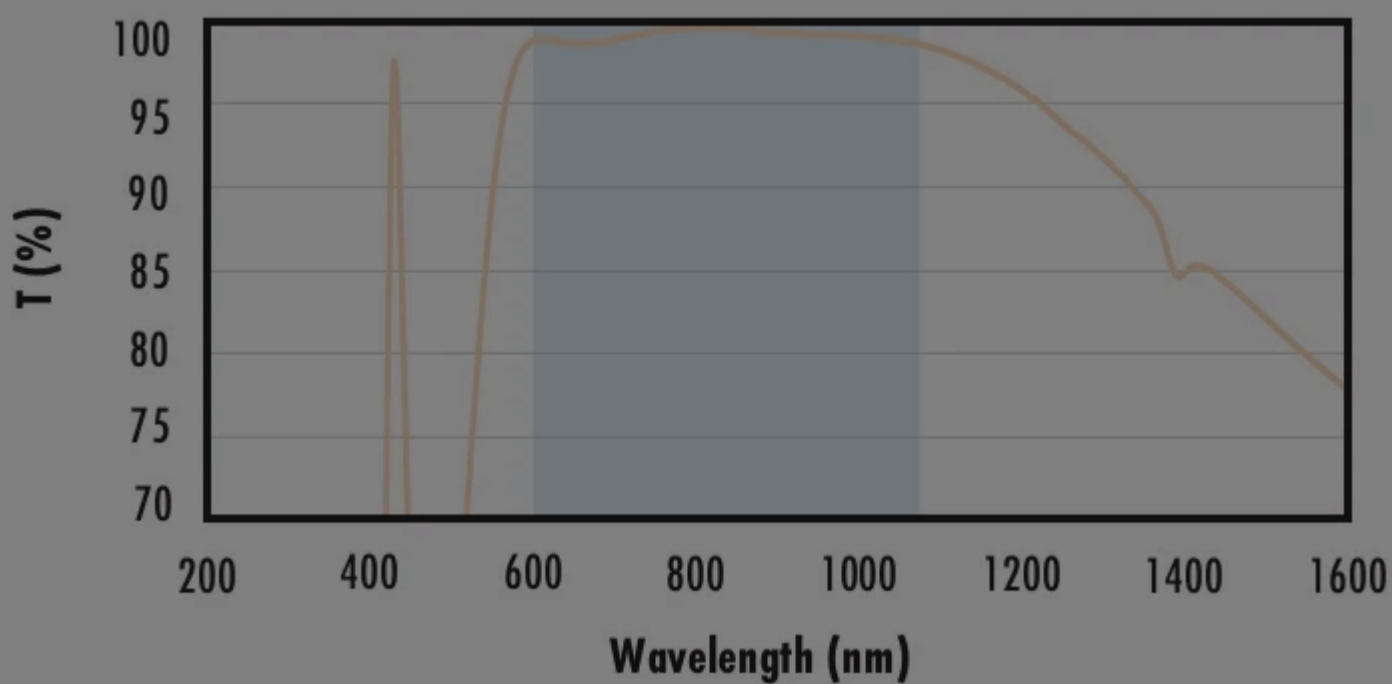
$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

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

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

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## 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.

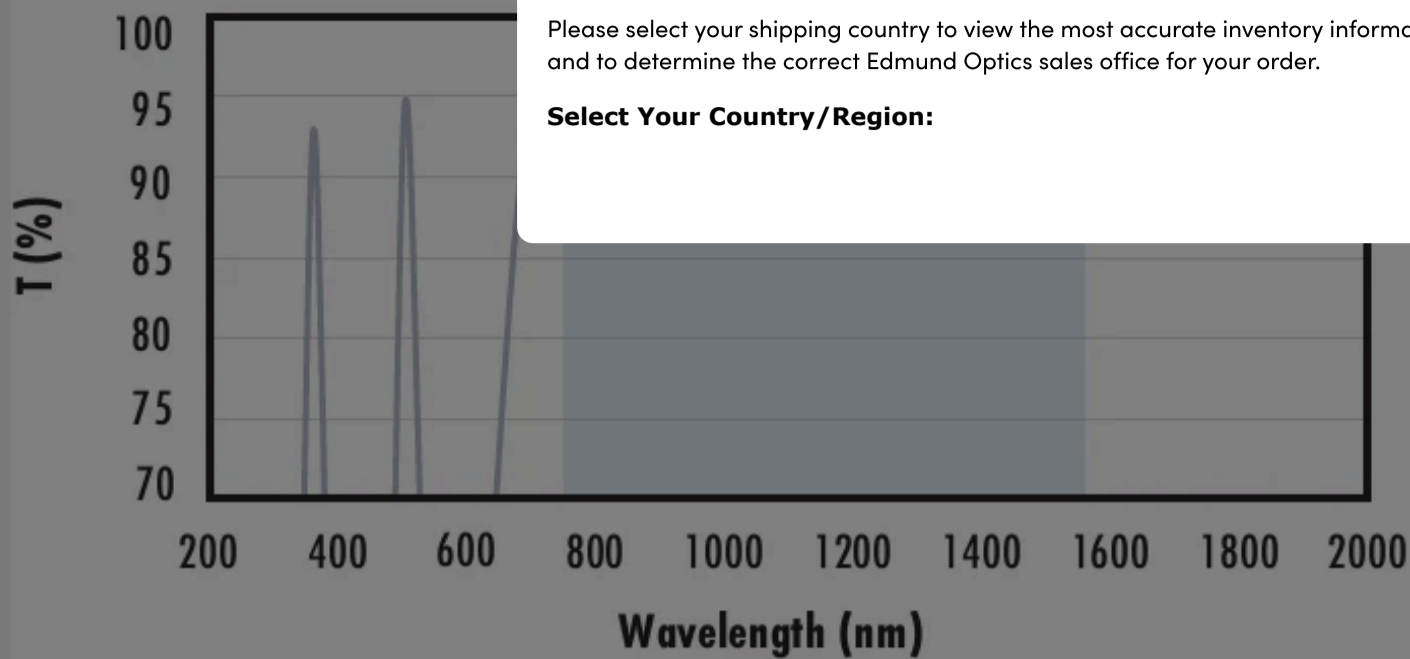
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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## Fused Silica with NIR II Coating Typical Transmission



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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.

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### Related Products



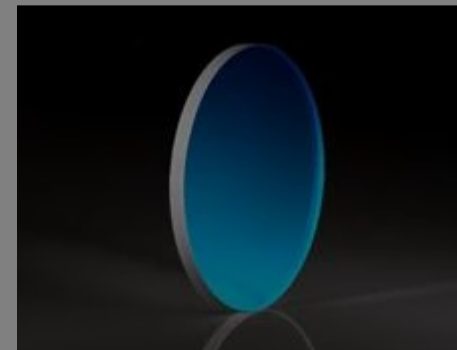
Cage System Optical Lens Mounts



C, S, and T-Mount Circular Optic Mounts

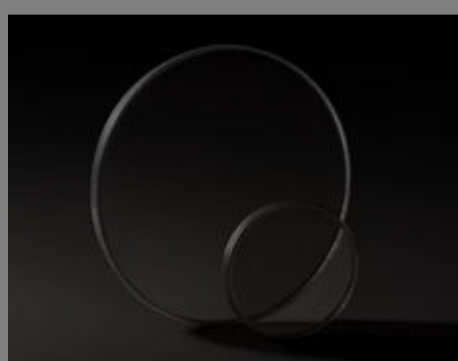


PUROSOL™ Optical Cleaner



$\lambda/20$  High Power Laser Line Windows

### Frequently Purchased Together



#47-217 - 50mm Dia. High Performance Glass Linear Polarizer  
€258,00

Qty



#53-984 - 4" x 4" Cloth Cleaning Wipes  
€36,25

Qty



#58-875 - Filter Kinematic Mount, 3-Screw  
€138,00

Qty























#67-046 - 543nm CWL, 50mm Dia, 22nm Bandwidth, OD 6 Fluorescence Filter  
€967,00

Qty

### Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
	50.0mm Optic Dia., Optic Mount	Fixed		#64-567	€49,25 <a href="#">Request Quote</a>	2 In Stock <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a>	 50.0mm Optic Dia. Optic Mount				€49,25	8 In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 10.0 - 60.0mm Optic Height Metric Bar-Type Optic Holder					<a href="#">CONTACT US</a> <input type="text" value="1"/> 
<a href="#">MORE+</a>	 7.0 - 67.0mm Optic Height, English Bar-Type Optic Holder	Fixed		#03-669	€116,00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., Optical Cell Assembly	Fixed		#36-465 <b>CLEARANCE</b>	€119,95 <a href="#">Request Quote</a>	2 In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 8.0 - 118.0mm Optic Height, English Bar-Type Optic Holder	Fixed		#03-666	€120,00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-957	€308,00 <a href="#">Request Quote</a>	3 In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	€410,00 <a href="#">Request Quote</a>	<a href="#">CONTACT US</a> <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., Precision Gimbal Mount	Adjustable - Gimbal		#55-000	€510,00 <a href="#">Request Quote</a>	7 In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-960	€605,00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	€840,00 <a href="#">Request Quote</a>	10 In Stock <input type="text" value="1"/> 

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

# Resources

## Media Type

- Application Note
- Technical Tool
- Video
- Glossary
- FAQ

**APPLICATION NOTE**

Anti-Reflection (AR) Coatings

**APPLICATION NOTE**

An Introduction to Optical Coatings

**TECHNICAL TOOL**

Beam Displacement Calculator

**APPLICATION NOTE**

UV vs. IR Grade Fused Silica

**APPLICATION NOTE**

Understanding Optical Windows

**VIDEO**

Optical Windows Review

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