

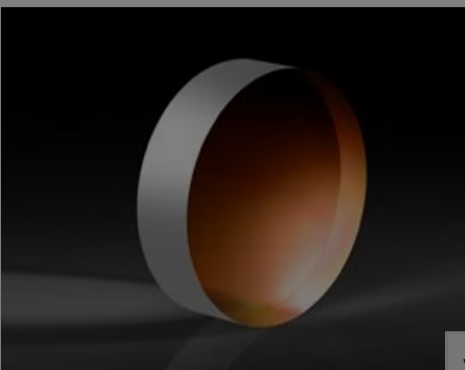
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TECHSPEC®

50mm Dia., 5mm Thick

Silica Window



Stock #65-878 **7 In Stock**

1

€319⁰⁰

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Volume Pricing	
Qty 1-5	€319,00 each
Qty 6-25	€255,00 each
Qty 26-49	€239,00 each
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Prices shown are exclusive of VAT/local taxes

Product Downloads	
STEP:step	Curve:pdf
PDF Drawing:pdf	IGES:igs
eDrawing:eprt	
EO Spec Sheet	Download All

General

Type: Protective Window	Type of Window: Glass
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Physical & Mechanical Properties

Clear Aperture CA (mm): 40.00	Diameter (mm): 50.00 +0.00/-0.20
Thickness (mm): 5.00 ±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/mm²): 522.00	

Optical Properties

Coating: UV-AR (250-425nm)	Substrate: Fused Silica (Corning 7980)
Index of Refraction (n_d): 1.458	Surface Quality: 20-10
Transmitted Wavefront, P-V: λ/10	Abbe Number (v_d): 67.8

Coating Specification: $R_{abs} \leq 1.0\%$ @ 250 - 425nm
 $R_{avg} \leq 0.75\%$ @ 250 - 425nm
 $R_{avg} \leq 0.5\%$ @ 370 - 420nm

Wavelength Range (nm): 250 - 450

Damage Threshold, Reference: 3 J/cm^2 @ 355nm, 10ns

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Material Properties

Density (g/cm³): 2.20

Coefficient of Thermal Expansion CTE (10⁻⁶/°C): 0.52 (+5 to +35°C)
0.57 (0 to +200°C)
0.48 (-100 to +200°C)

Fused Silica Grade: 7980 0G

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

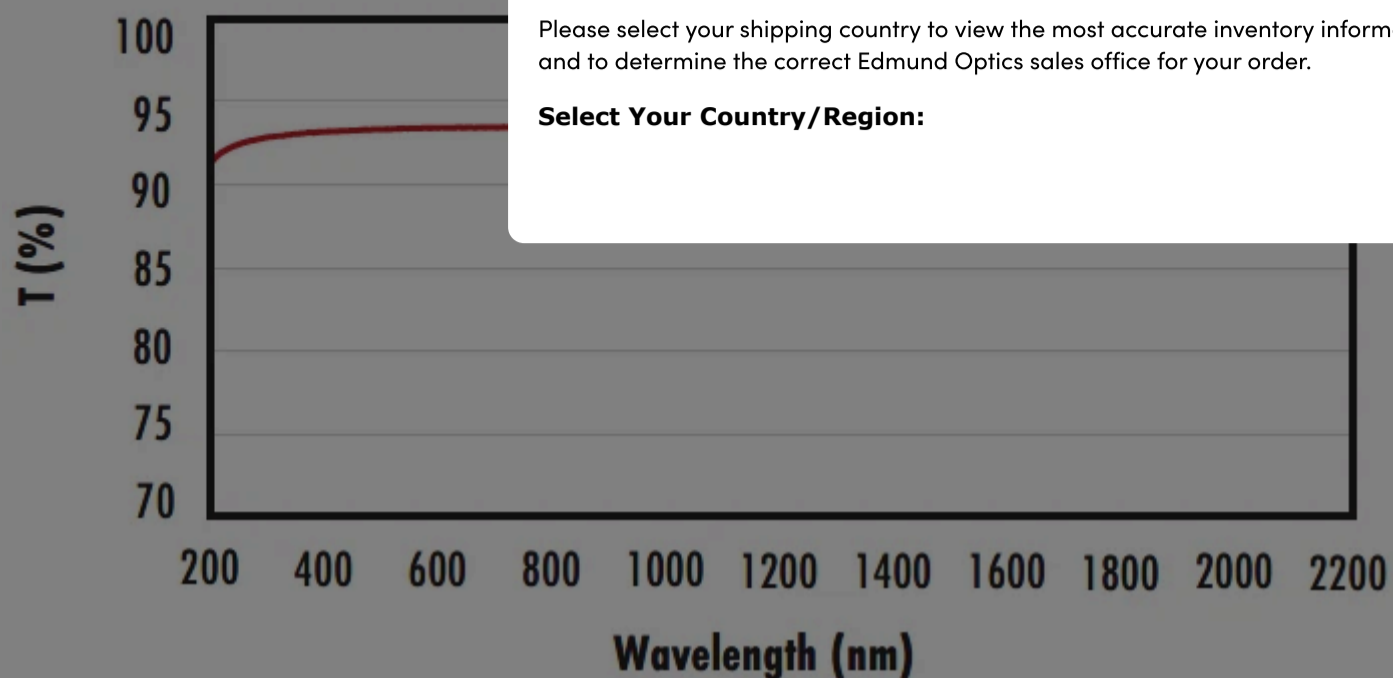
- UV, Visible, and NIR Anti-Reflection Coated Versions Available
- $\lambda/10$ Transmitted Wavefront Distortion
- Circular and Square Sizes from 2mm to 150mm
- **1 λ** or **$\lambda/4$** UV Fused Silica Windows Also Available

TECHSPEC® $\lambda/10$ UV Fused Silica Windows feature laser-grade surface quality and parallelism. In addition, these windows will limit the transmitted wavefront distortion to $\lambda/10$. The superior transmission characteristics, excellent thermal properties, and high tolerance manufacturing specifications make these windows an excellent choice for more demanding applications. TECHSPEC $\lambda/10$ 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

UV FS Transmission Curve

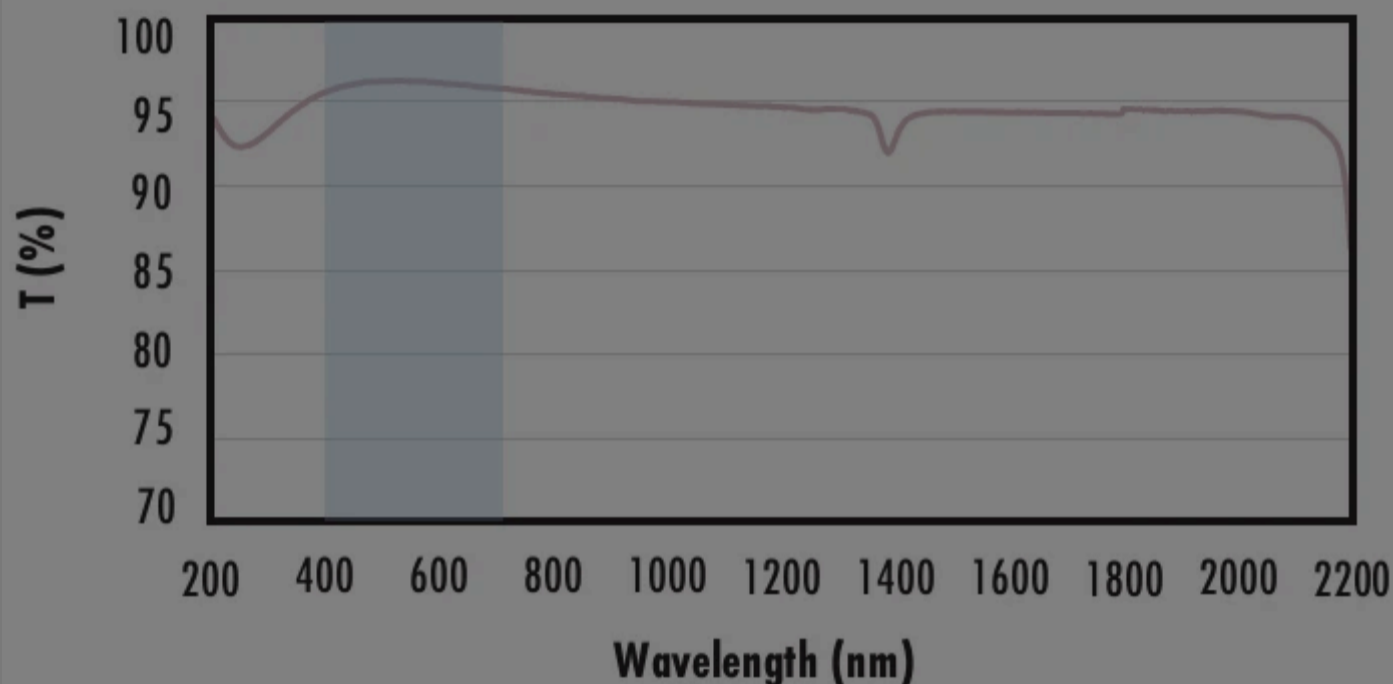
Uncoated Fused Silica Typical Transmission



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.

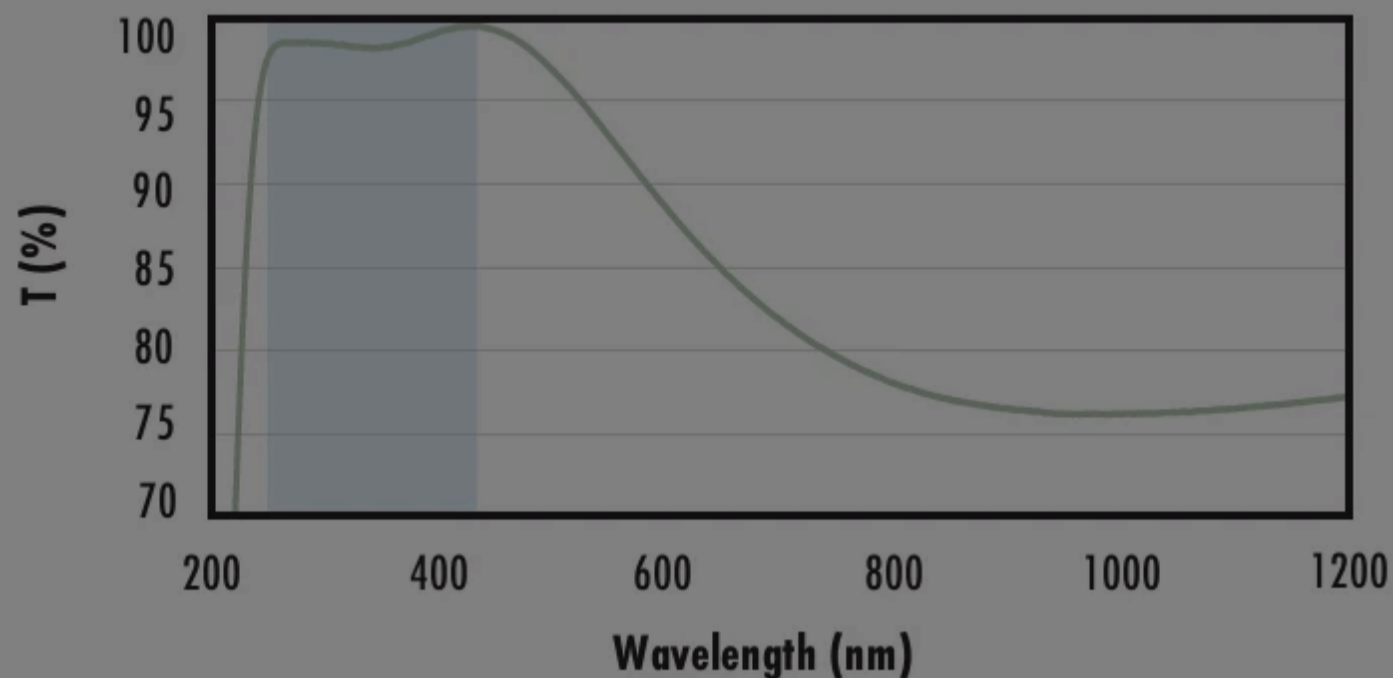
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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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:

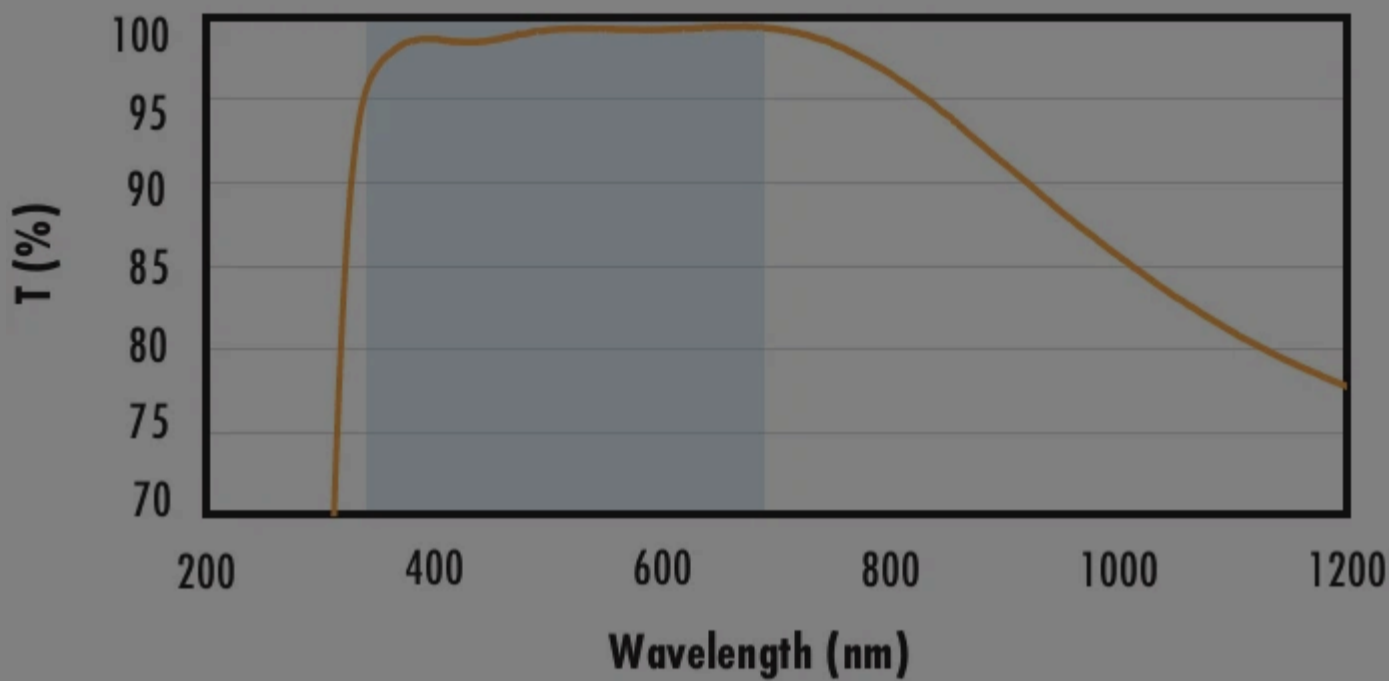
$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

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

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

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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.

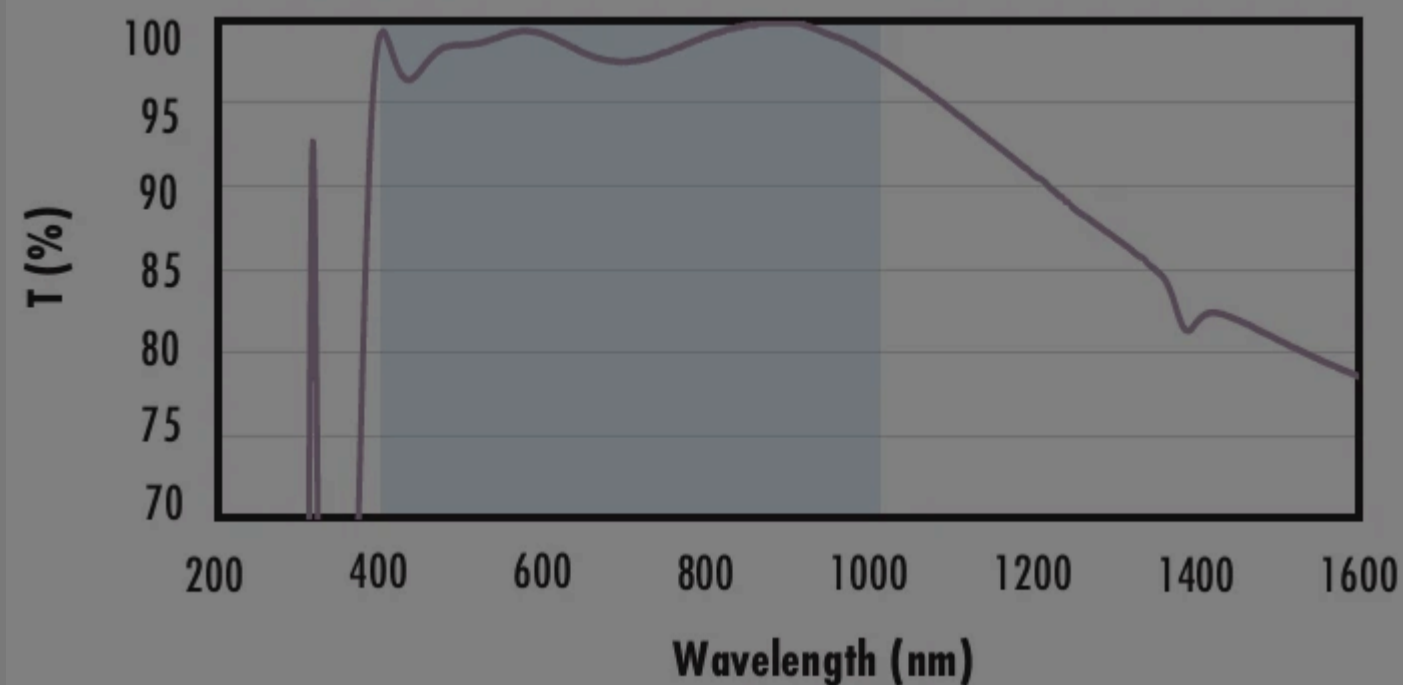
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

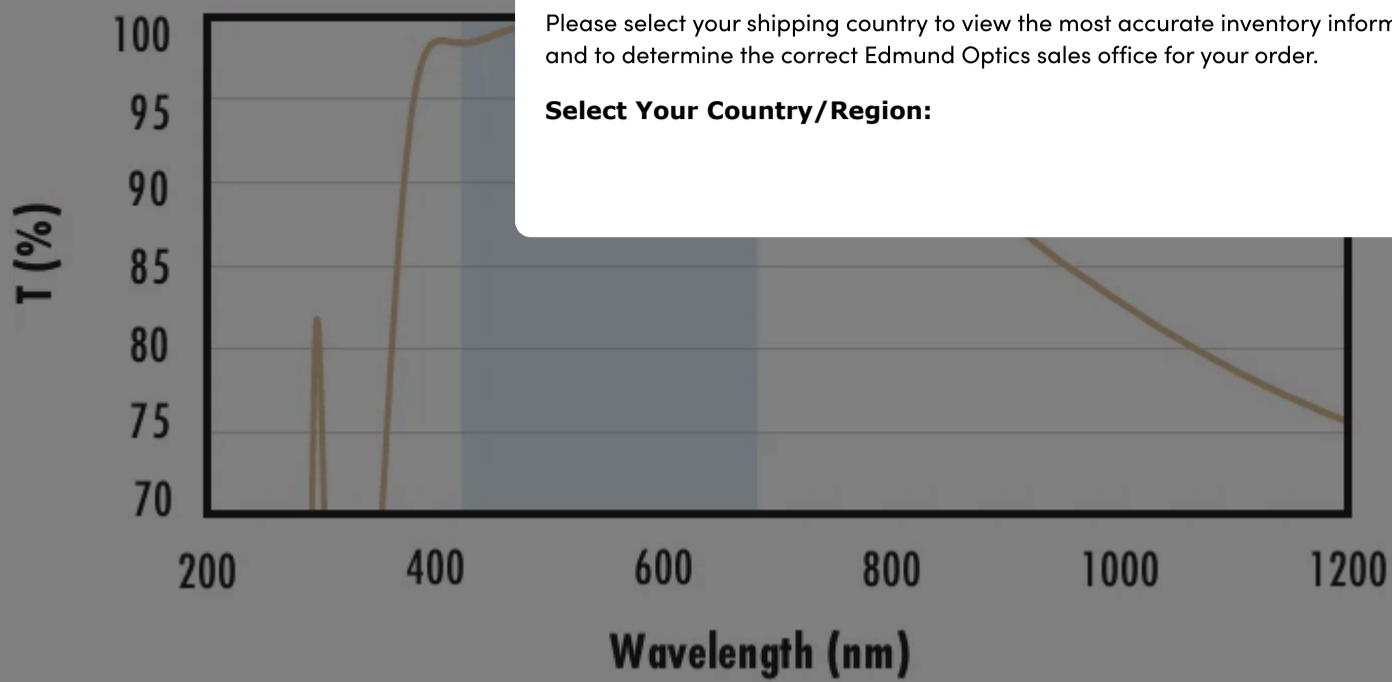
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

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

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

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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.

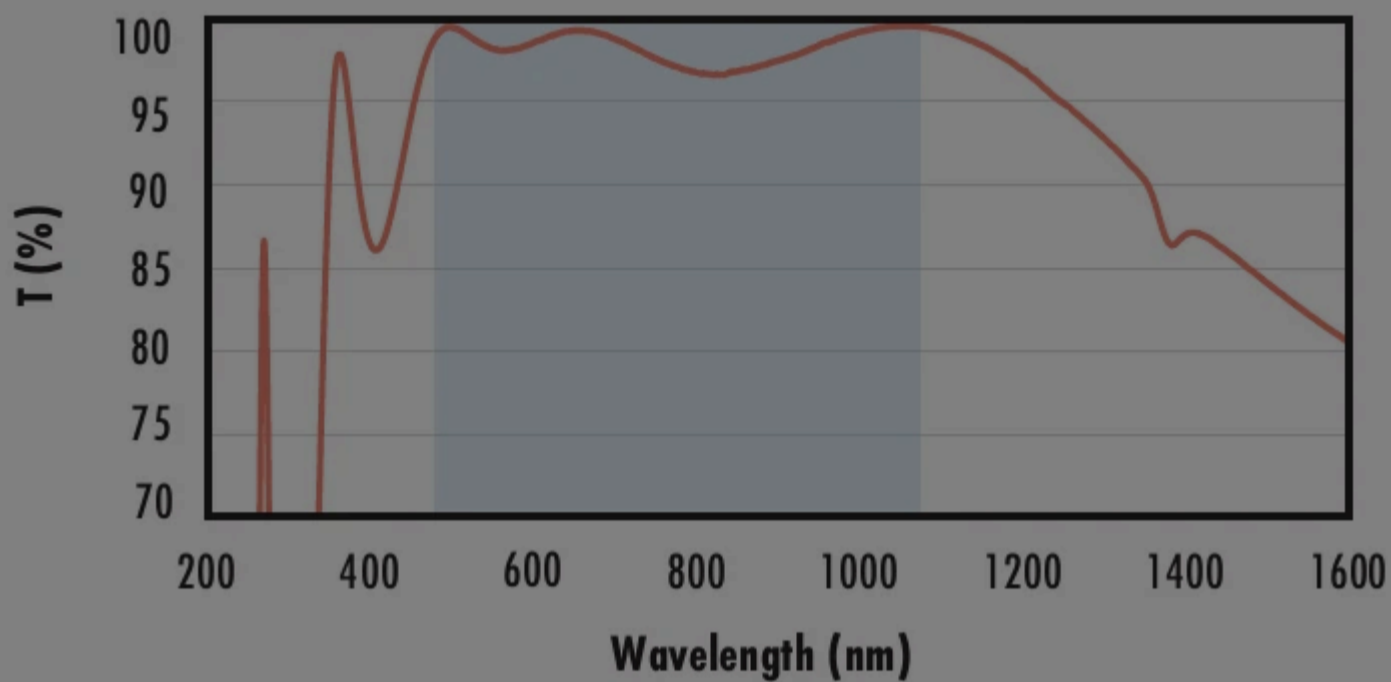
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

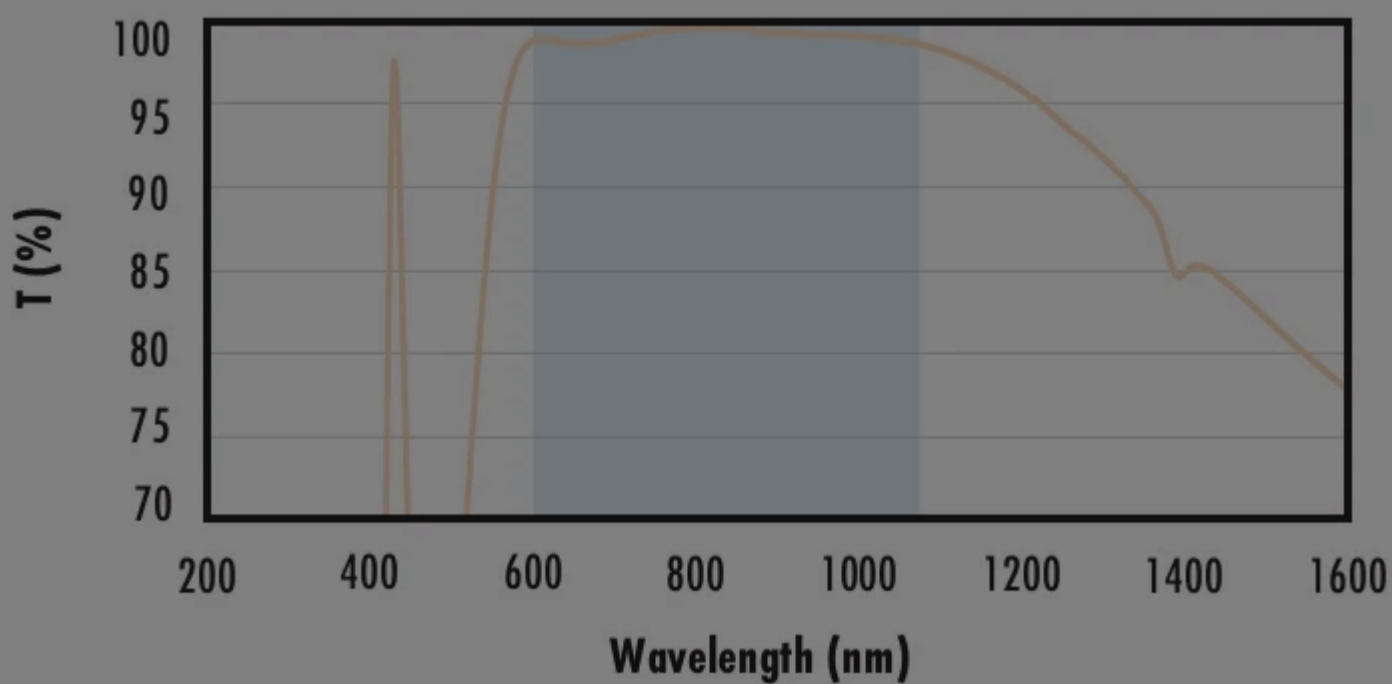
$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

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

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.

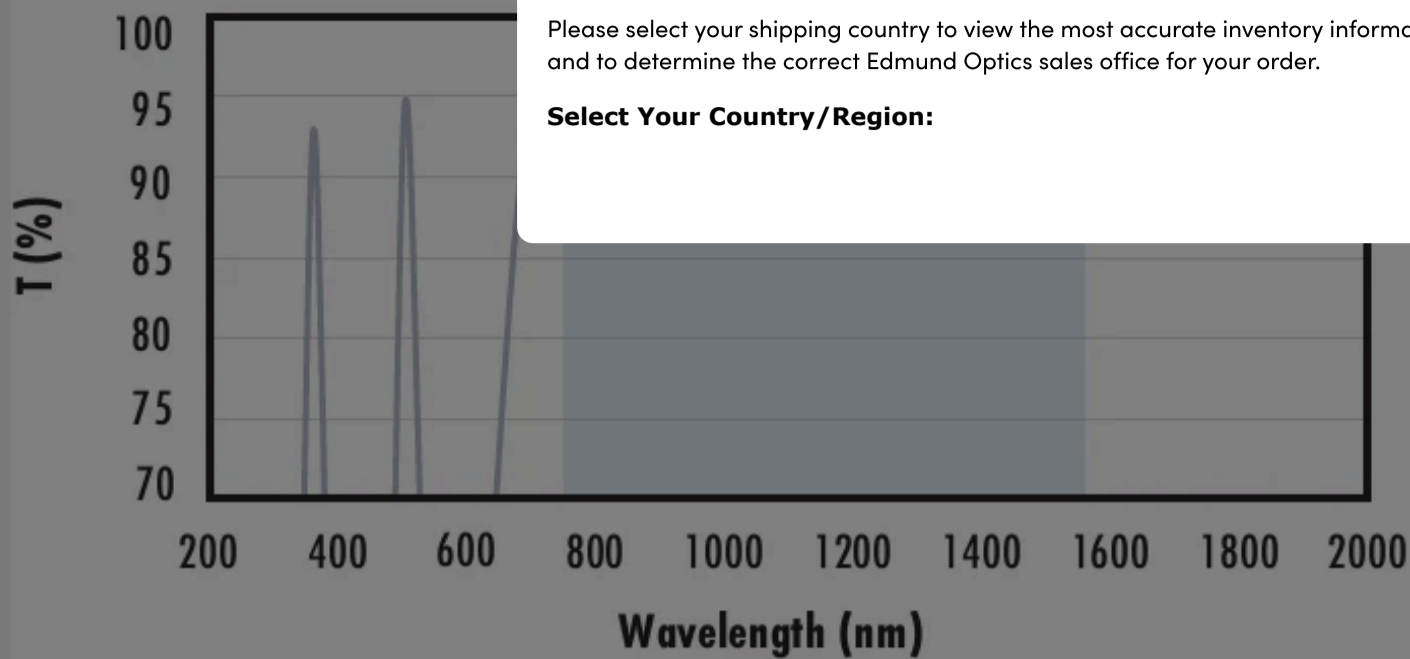
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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



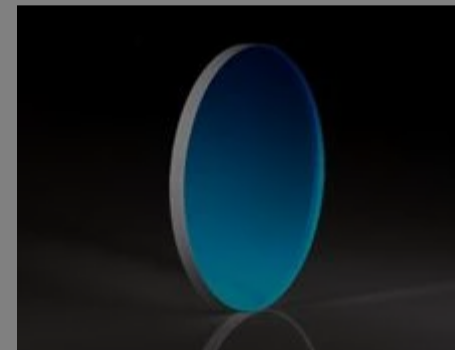
Cage System Optical Lens Mounts



C, S, and T-Mount Circular Optic Mounts

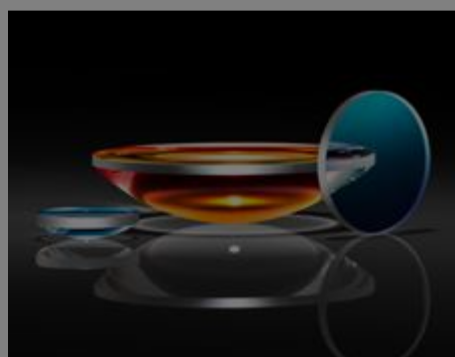


PUROSOL™ Optical Cleaner



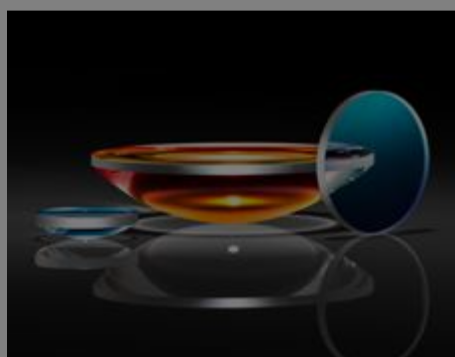
λ/20 High Power Laser Line Windows

Frequently Purchased Together



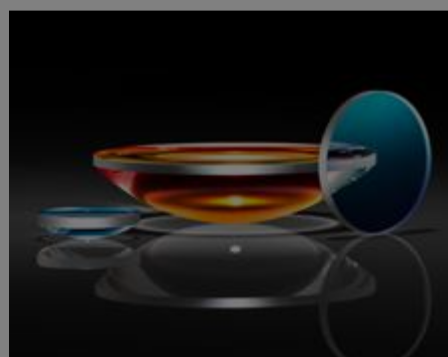
#48-284 - 25mm Dia. x 50mm FL UV-AR Coated, UV Plano-Convex Lens
€179,00

Qty



#48-286 - 25mm Dia. x 100mm FL UV-AR Coated, UV Plano-Convex Lens
€173,00

Qty



#48-290 - 25mm Dia. x 200mm FL UV-AR Coated, UV Plano-Convex Lens
€166,00

Qty























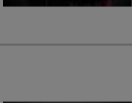











#54-994 - 25mm sq - Rectangular Bar Clamp
€108,00

Qty









Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	50.0mm Optic Dia., Optic Mount	Fixed		#64-567	€49,25 Request Quote	1 In Stock 1

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	 50.0mm Optic Dia., Optic Holder				€49,25	8 In Stock <input type="text" value="1"/> 
MORE+	 9.5 - 73.0mm Optic Dia., Three-Screw Adjustable Ring Mount					20+ In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., E-Series Kinematic Mount	Adjustable - Tip-Tilt		#15-867	€96,00 Request Quote	5 In Stock <input type="text" value="1"/> 
MORE+	 10.0 - 60.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-530	€108,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+	 19.5 - 108.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#03-670	€114,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 7.0 - 67.0mm Optic Height, English Bar-Type Optic Holder	Fixed		#03-669	€116,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., Optical Cell Assembly	Fixed		#36-465 CLEARANCE	€119,95 Request Quote	2 In Stock <input type="text" value="1"/> 
MORE+	 8.0 - 118.0mm Optic Height, English Bar-Type Optic Holder	Fixed		#03-666	€120,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt		#58-852	€135,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt		#58-855	€157,00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., Stainless Steel Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt		#26-816	€246,00 Request Quote	12 In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., Stainless Steel Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt		#26-819	€268,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-957	€308,00 Request Quote	3 In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., Kinematic Mirror Mount	Adjustable - Tip-Tilt		#55-005	€361,00 Request Quote	6 In Stock <input type="text" value="1"/> 
MORE+	 50.0/50.8mm Optic Dia., Kinematic Mirror Mount with Micrometer	Adjustable - Tip-Tilt		#56-326	€387,00 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+	 5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	€410,00 Request Quote	CONTACT US <input type="text" value="1"/> 

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	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	50.0/50.8mm Optic Dia., Precision G Mount				€510,00	7 In Stock <input type="text" value="1"/> 
MORE+ 	50.0/50.8mm Optic Dia., Translating Mount					20+ In Stock <input type="text" value="1"/> 
MORE+ 	50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	€840,00 Request Quote	10 In Stock <input type="text" value="1"/> 

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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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