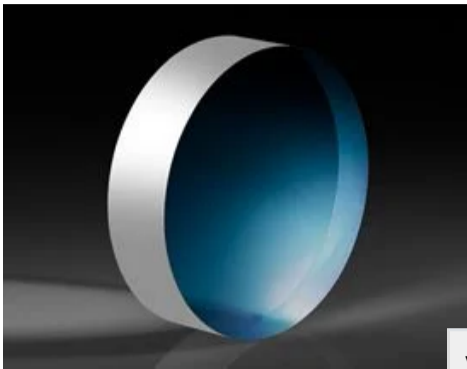


TECHSPEC®

25mm Dia. 2mm Thick UV-AR Coated, 1λ Fused Silica Window



Stock #45-812 **20+ In Stock**

1

£93^{.60}

ADD TO CART

Volume Pricing	
Qty 1-5	£93.60 each
Qty 6-25	£74.40 each
Qty 26-49	£70.00 each
Need More?	Request Quote

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): 22.50	Diameter (mm): 25.00 +0.00/-0.20
Thickness (mm): 2.00 ±0.38	Parallelism (arcmin): <5
Dimensional Tolerance (mm): +0.00/-0.20	Bevel: Protective as needed
Clear Aperture (%): 90	Edges: Fine Ground
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: 60-40

Abbe Number (v_d):	67.8	Coating Specification:	R _{abs} ≤1.0% @ 250 - 425nm R _{avg} ≤0.75% @ 250 - 425nm R _{avg} ≤0.5% @ 370 - 420nm
Wavelength Range (nm):	250 - 450	Surface Flatness (P-V):	1λ
Damage Threshold, Reference: ⓘ	3 J/cm ² @ 355nm, 10ns		

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 247:	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

- Available Uncoated or with Broadband Anti-Reflection Coatings
- Ideal for Cost Sensitive Broadband Applications
- Circular and Square Sizes from 5mm to 100mm
- **λ/4** or **λ/10** UV Fused Silica Windows Also Available

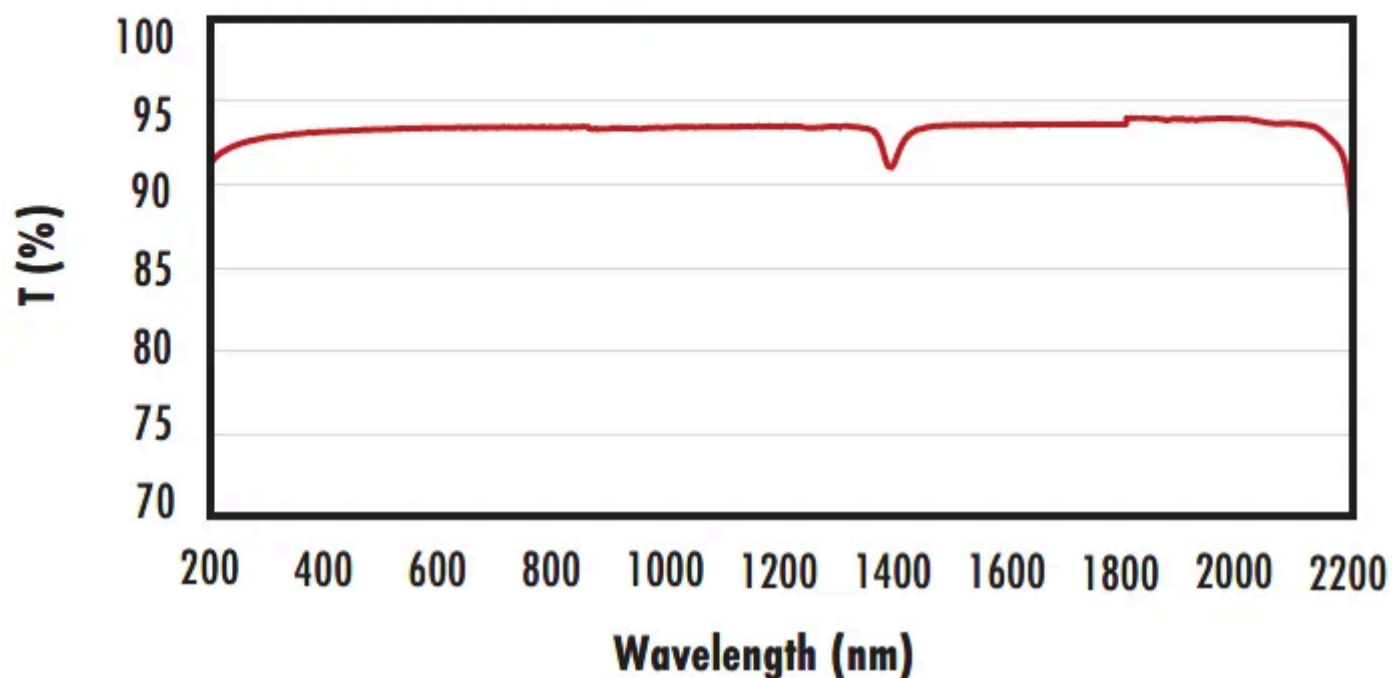
TECHSPEC® 1λ UV Fused Silica Windows are precision manufactured using UV-grade synthetic fused silica. In addition to superior transmission, the synthetic fused silica of these optical windows exhibits higher thermal properties, exceptional purity, and excellent environmental durability for demanding applications. The windows are ideal for cost-sensitive broadband applications and are available uncoated or with broadband anti-reflection coatings. TECHSPEC® 1λ UV Fused Silica Windows have circular and square sizes ranging from 5mm to 100mm. **λ/4** or **λ/10** UV Fused Silica Windows are also available.

Note: New additions to this product family may be specified with a transmitted wavefront distortion (TWD) specification instead of a surface flatness. For more information on the difference between these two specifications, see our application note on [Understanding Optical Windows](#).

Technical Information

UV FS Transmission Curve

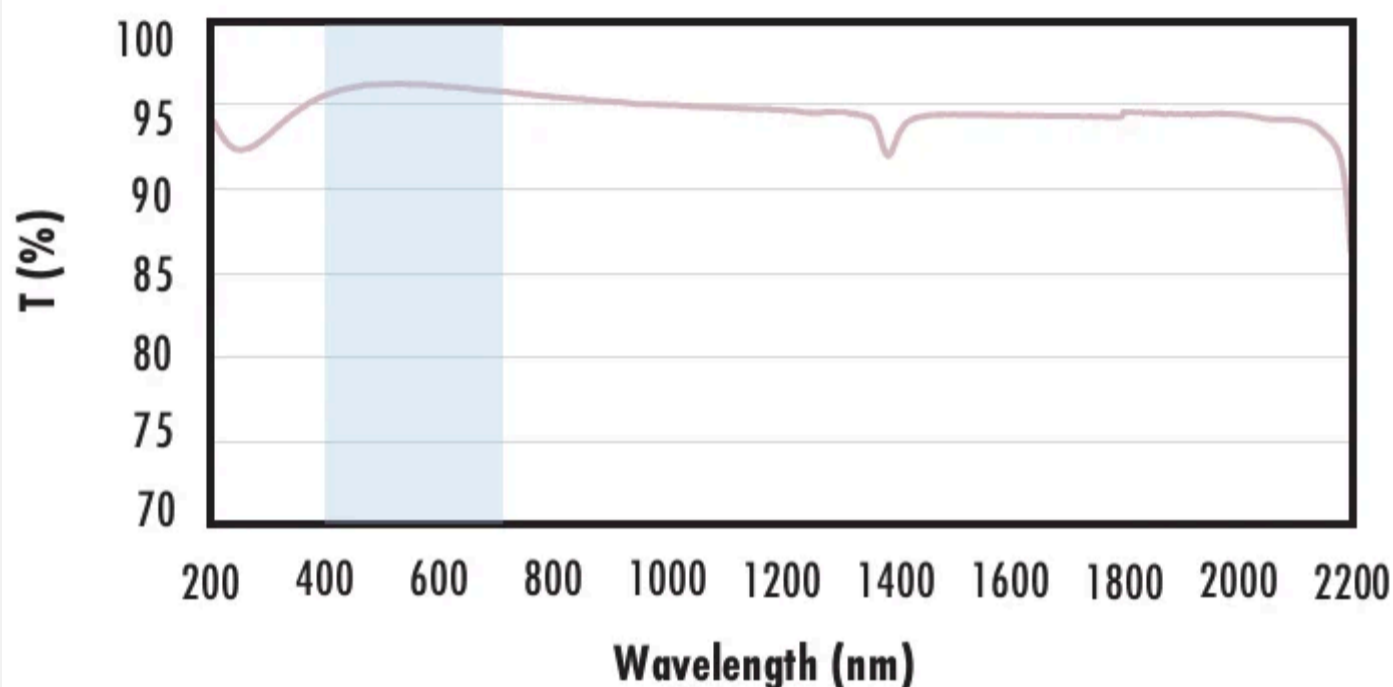
Uncoated Fused Silica Typical Transmission



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.

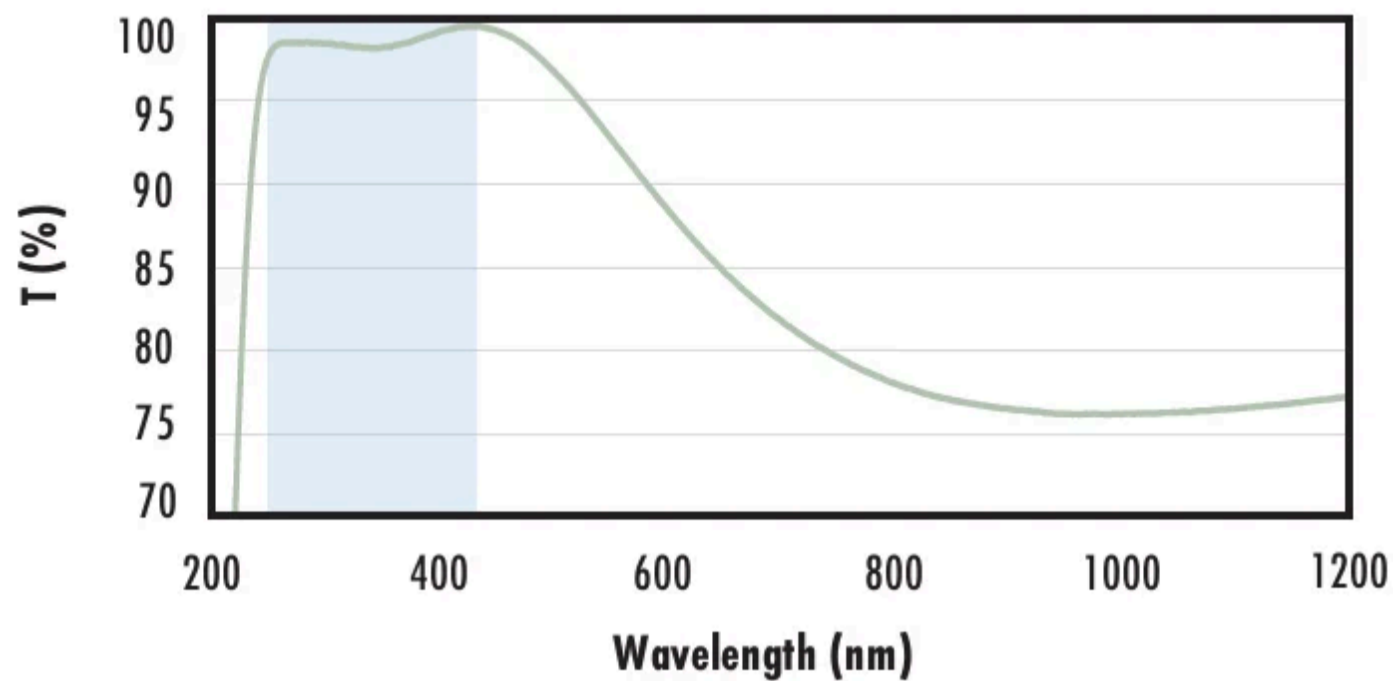
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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.

[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:

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

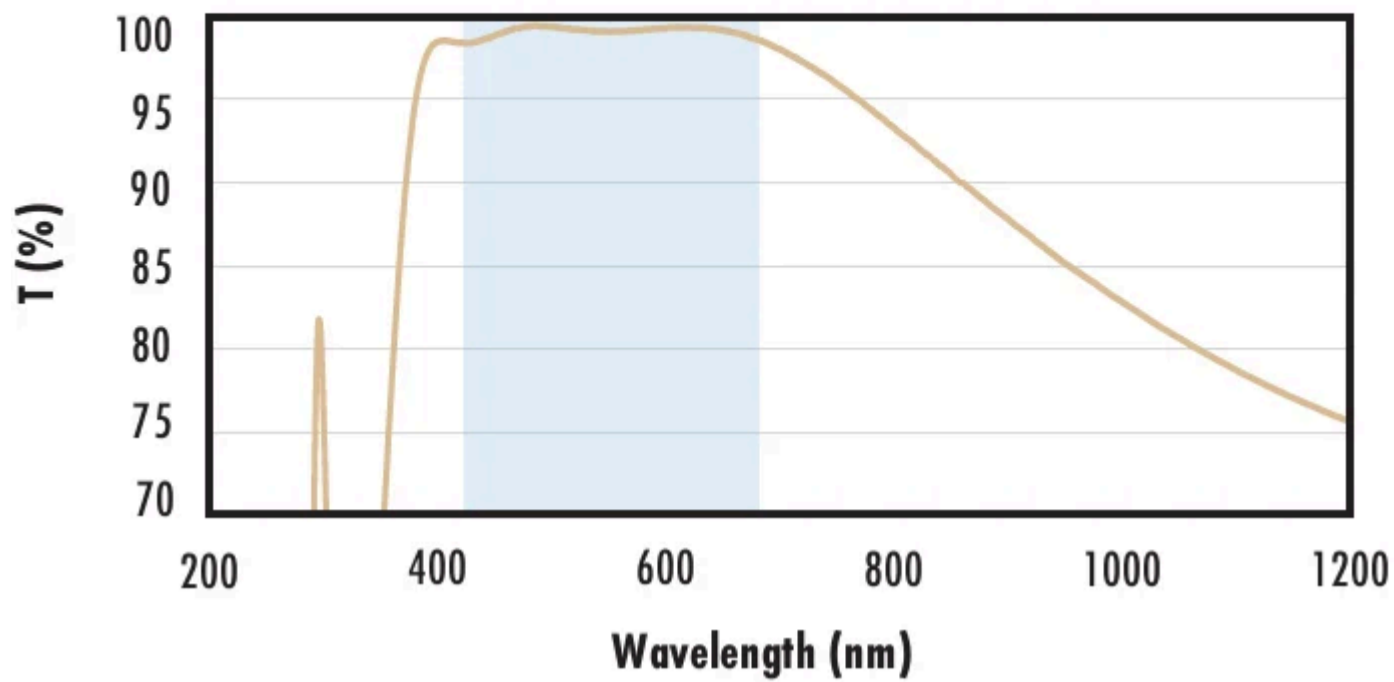
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

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

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 wind with VIS 0° (425–675nm) coating at 0° AOI.

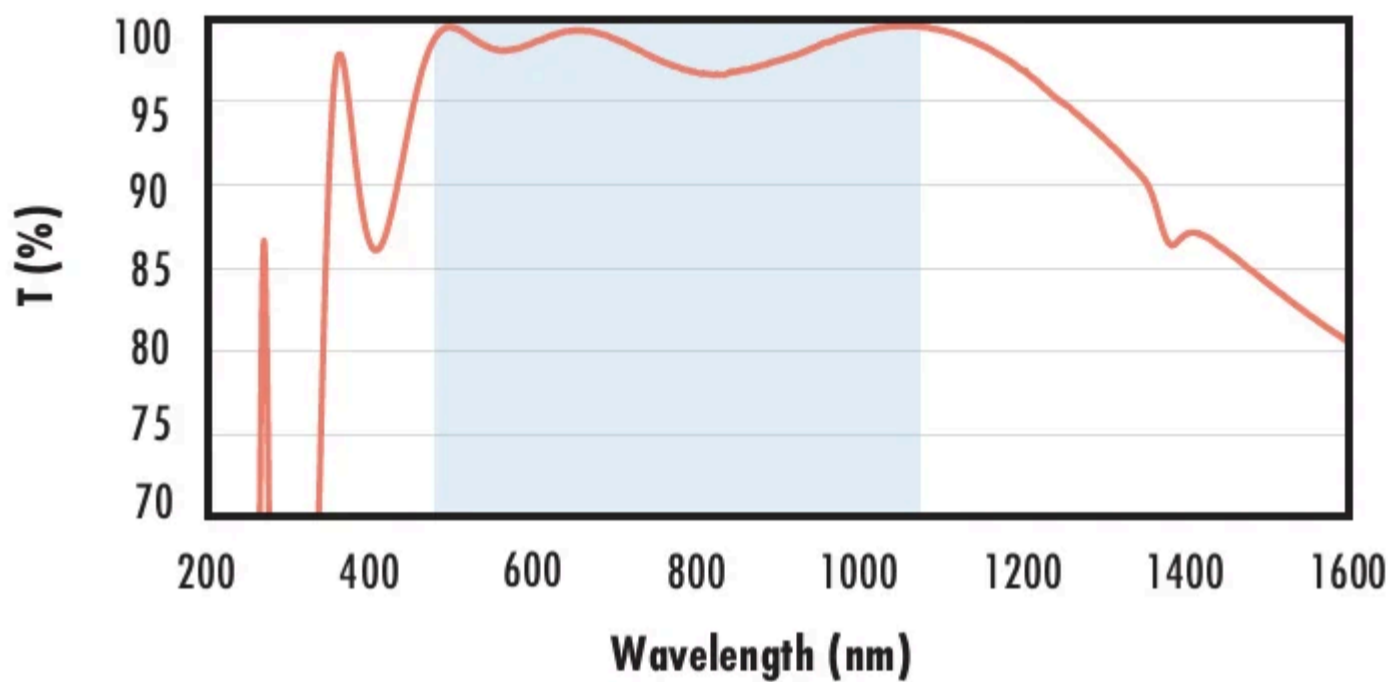
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 wind with YAG-BBAR (500–1100nm) coating at 0° AOI.

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

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

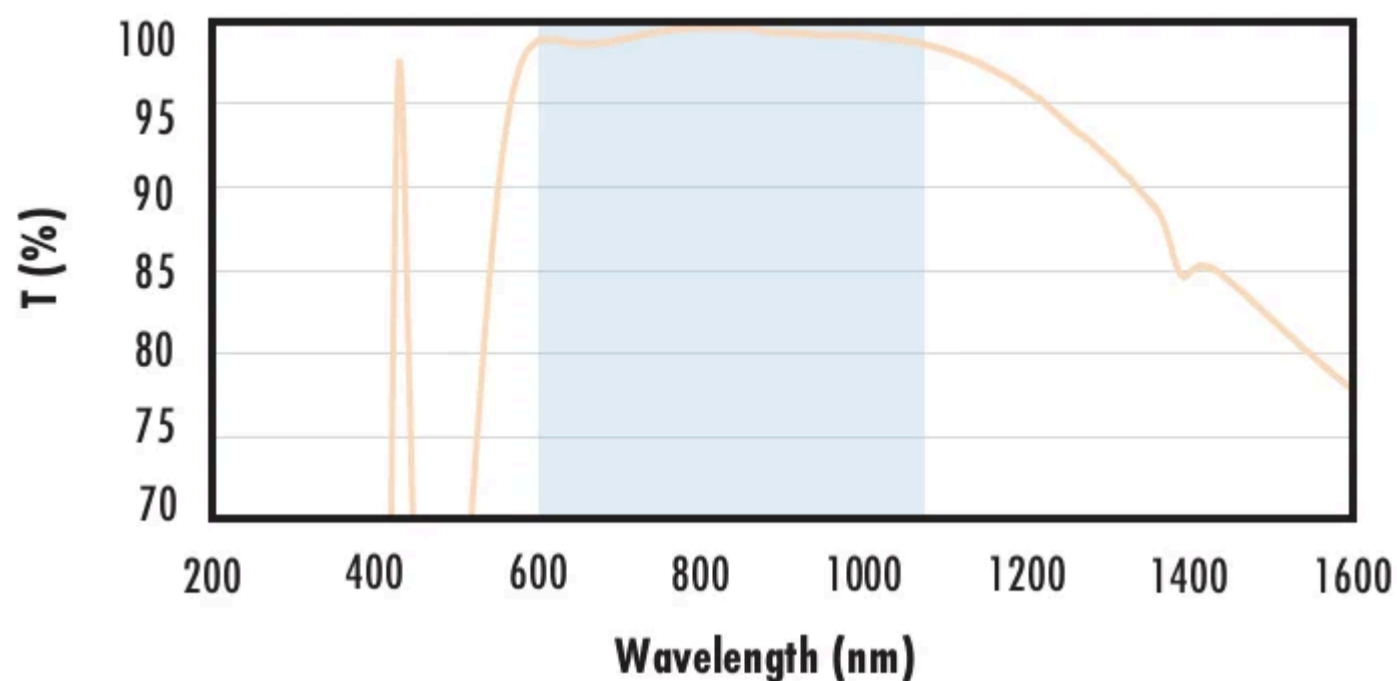
$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

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

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 wind with NIR I (600 – 1050nm) coating at 0° AOI.

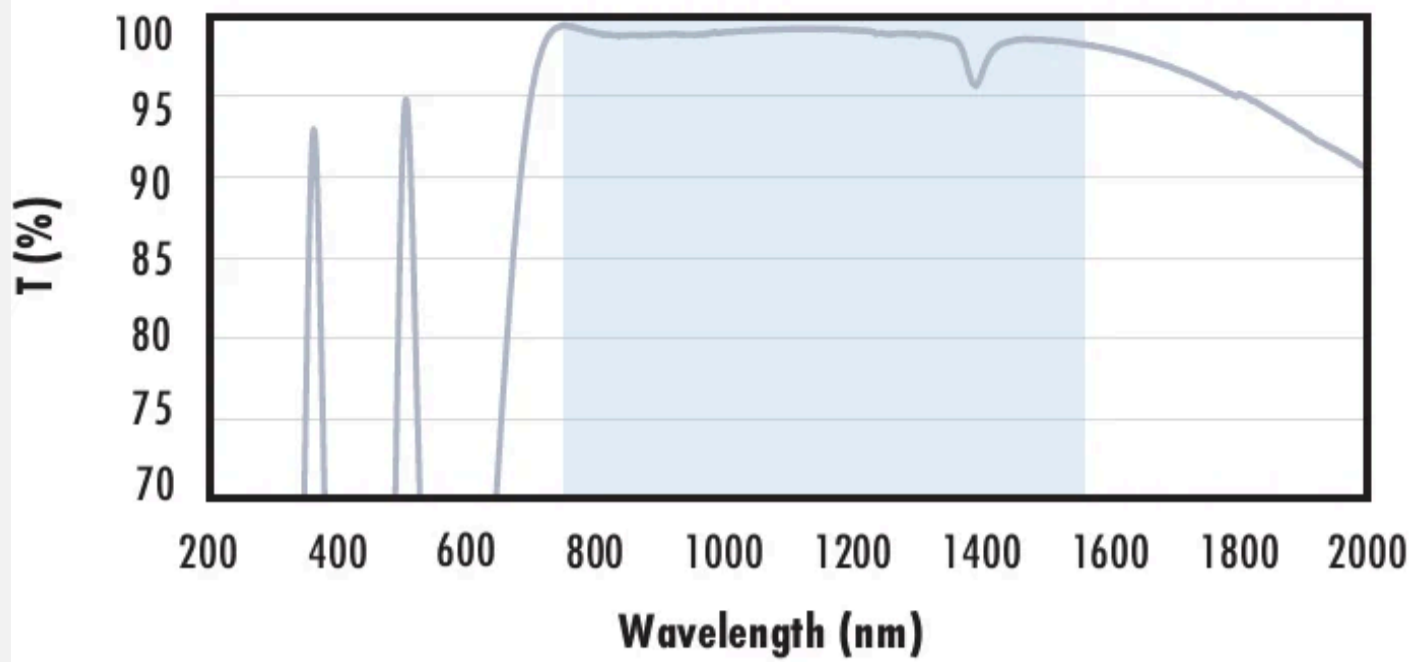
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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



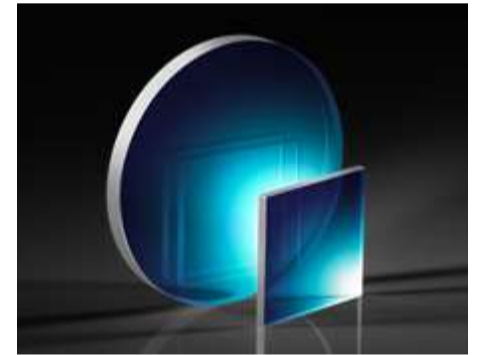
Cage System Optical Lens Mounts



C, S, and T-Mount Circular Optic Mounts



PUROSOL™ Optical Cleaner



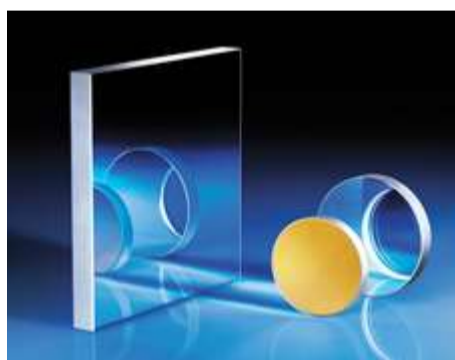
$\lambda/10$ UV Fused Silica Windows

Frequently Purchased Together



#43-369 - 25mm Dia., 2.3mm Thick, Uncoated, Sapphire Window
£95.00

Qty



#32-945 - 25mm Dia Enhanced Aluminum, 4-6 λ Mirror
£24.80

Qty



#32-950 - 20mm Diameter MgF₂ Coated, B270 Window
£34.80

Qty






















































#33-913 - 25mm Dia., Vacuum UV (VUV) Mirror
£248.80

Qty



Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	25.0/25.4mm Optic Dia., SM1 Thin Mount, M4	Fixed		#13-787	£16.80 Request Quote	9 In Stock <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
 	25.0/25.4mm Optic Dia., SM1 Thin Mount, 8-32	Fixed		#13-788	£16.80 Request Quote	20+ In Stock <input type="text" value="1"/> 
 	25.0mm Optic Dia., Optic Mount	Fixed		#64-560	£26.20 Request Quote	CONTACT US <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., L-Slot Direct Mount	Fixed		#36-410	£54.40 Request Quote	15 In Stock <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., Side Flange Direct Mount	Fixed		#36-414	£56.80 Request Quote	20+ In Stock <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., Optical Cell Assembly	Fixed		#36-461 CLEARANCE	£76.76 Request Quote	2 In Stock <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., L-Slot and Rotation Direct Mount	Adjustable - Rotary		#36-411	£81.60 Request Quote	5 In Stock <input type="text" value="1"/> 
 	5.0 - 25.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-529	£81.60 Request Quote	20+ In Stock <input type="text" value="1"/> 
 	7.0 - 40.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-676	£84.80 Request Quote	20+ In Stock <input type="text" value="1"/> 
 	10.0 - 60.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-530	£86.40 Request Quote	CONTACT US <input type="text" value="1"/> 
 	7.0 - 67.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-669	£92.80 Request Quote	20+ In Stock <input type="text" value="1"/> 
 	8.0 - 118.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-666	£96.00 Request Quote	20+ In Stock <input type="text" value="1"/> 
 	4.0 - 36.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-077	£125.60 Request Quote	5 In Stock <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-956	£220.80 Request Quote	CONTACT US <input type="text" value="1"/> 
 	5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	£328.00 Request Quote	CONTACT US <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., Precision Gimbal Mount	Adjustable - Gimbal		#54-999	£368.80 Request Quote	4 In Stock <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-959	£432.00 Request Quote	6 In Stock <input type="text" value="1"/> 
 	25.0/25.4mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-776	£604.00 Request Quote	2 In Stock <input type="text" value="1"/> 

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

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