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TECHSPEC® 50mm Dia. 4mm Thick VIS-EXT Coated, 1λ Fused Silica Window



TECHSPEC® 1λ UV Fused Silica Windows

Stock **#25-208** **3 In Stock**

1 MRP ₹17,958

Price inclusive of all taxes

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Volume Pricing	
Qty 1-5	₹17,958 each
Qty 6-25	₹14,326 each
Qty 26-49	₹13,419 each
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General

Protective Window **Type:**

Glass **Type of Window:**

Physical & Mechanical Properties

Clear Aperture CA (mm):

45.00	Diameter (mm):
50.00 +0.00/-0.20	
	Thickness (mm):
4.00 ±0.38	
	Parallelism (arcmin):
<5	
	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:
VIS-EXT (350-700nm)	
	Substrate: <input type="checkbox"/>
Fused Silica (Corning 7980)	
	Index of Refraction (n_d):
1.458	
	Surface Quality:
60-40	
	Abbe Number (v_d):
67.8	
	Coating Specification:
R _{avg} ≤0.5% @350 - 700nm	
	Wavelength Range (nm):
350 - 700	
	Surface Flatness (P-V):
1λ	
	Damage Threshold, Reference: <input type="checkbox"/>
5 J/cm ² @ 532nm, 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 235:
Compliant	
	Country of Origin:
Vietnam	
	Imported By:
Edmund Optics India Private Limited 267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038 Phone: +91- 80-6845 0000	

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
- $\lambda/4$ or $\lambda/10$ UV Fused Silica Windows Also Available

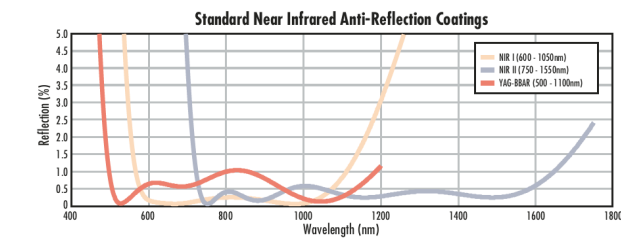
TECHSPEC® 1 λ UV Fused Silica Windows are precision manufactured using UV-grade synthetic fused silica. In addition to superior transmission, the synthetic fused silica of these optical windows exhibits higher thermal properties, exceptional purity, and excellent environmental durability for demanding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



FUSED SILICA

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](#)



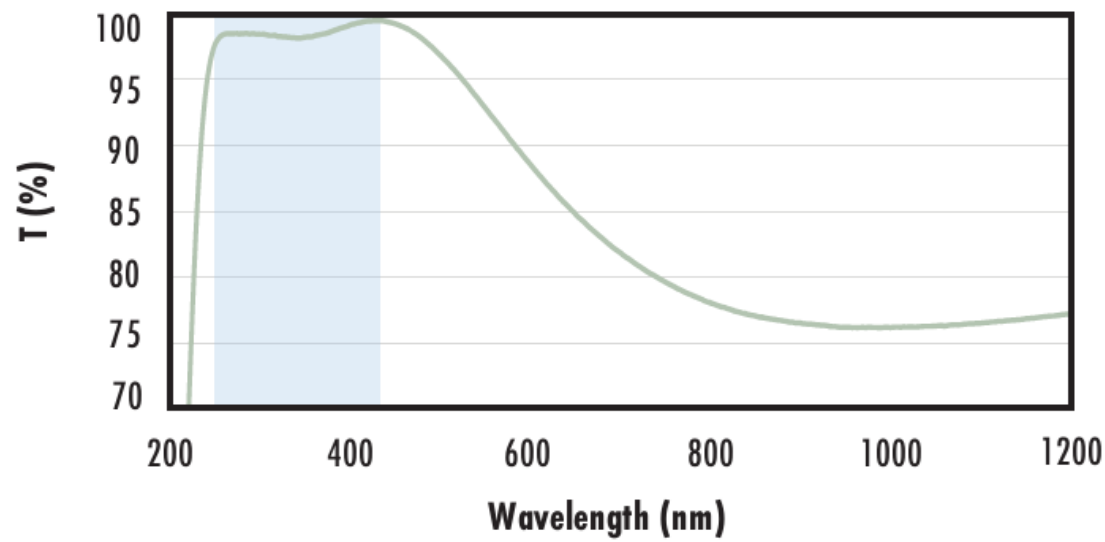
**Fused Silica with MgF₂ Coating
Typical Transmission**



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:
 $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (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**



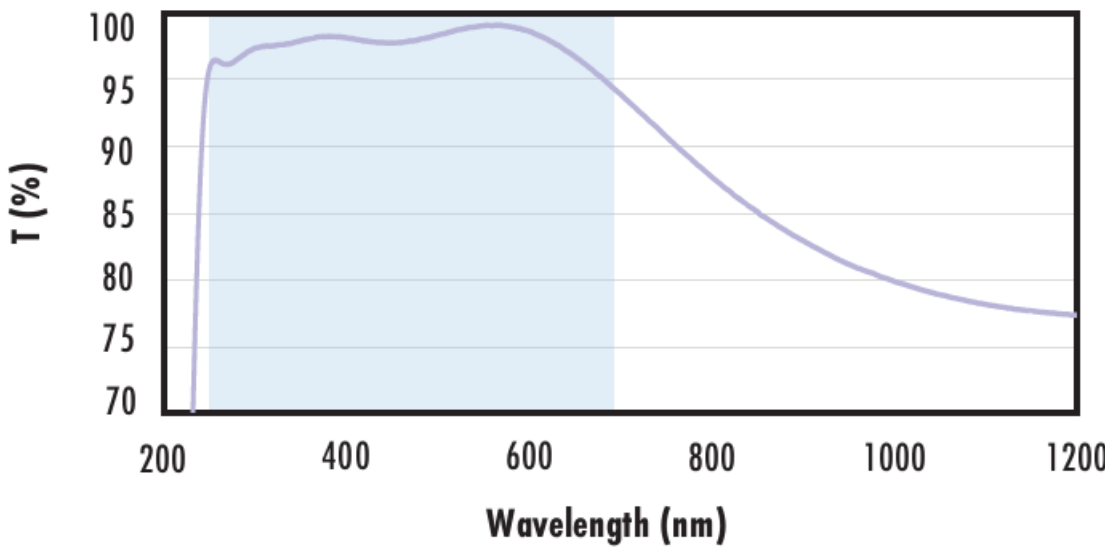
Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

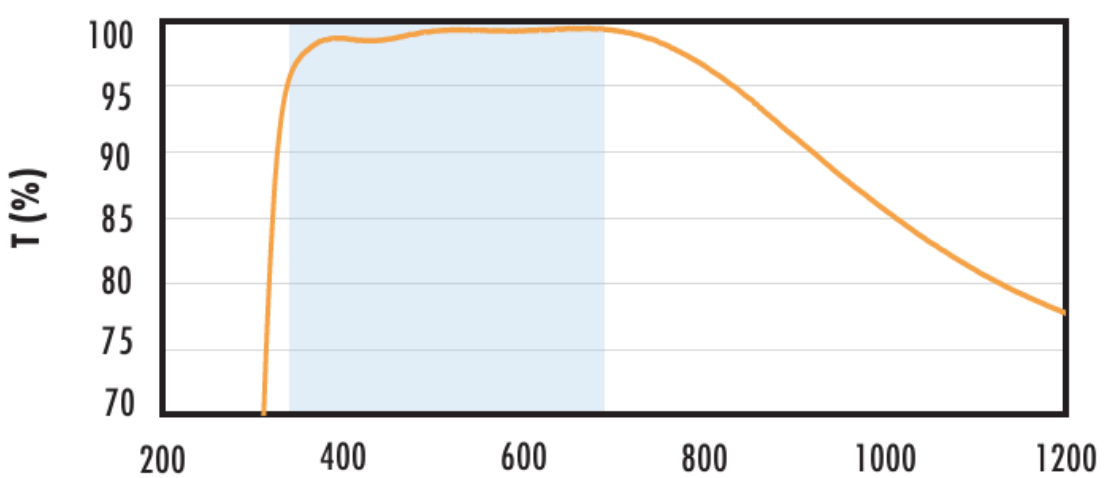
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$
 $R_{avg} \leq 1.5\% @ 250 - 700\text{nm}$

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

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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:

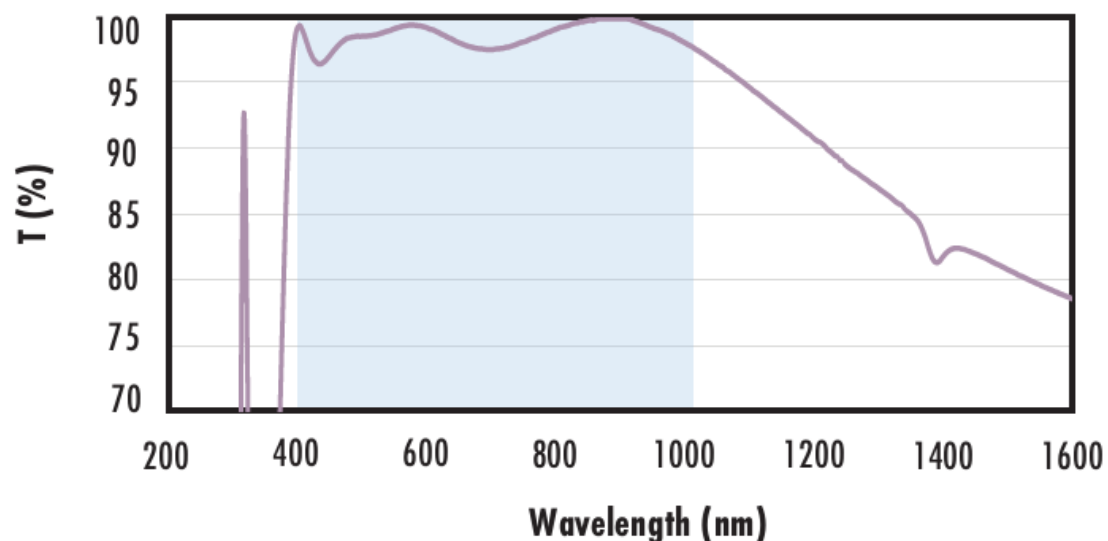
$R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$

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

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Wavelength (nm)

Fused Silica with VIS-NIR Coating Typical Transmission



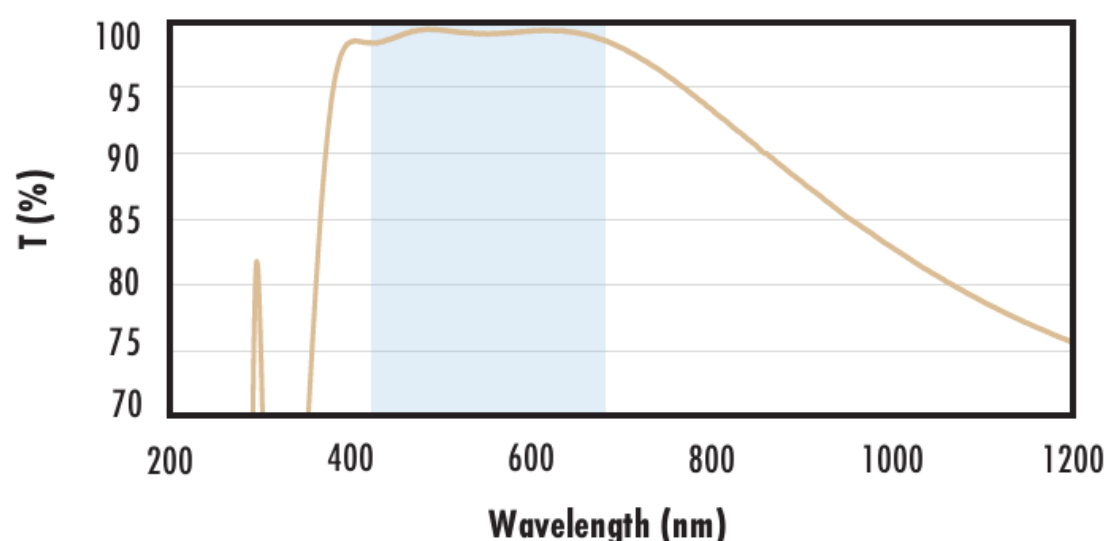
Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 0.25\% @ 880nm$$
$$R_{avg} \leq 1.25\% @ 400 - 870nm$$
$$R_{avg} \leq 1.25\% @ 890 - 1000nm$$

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.

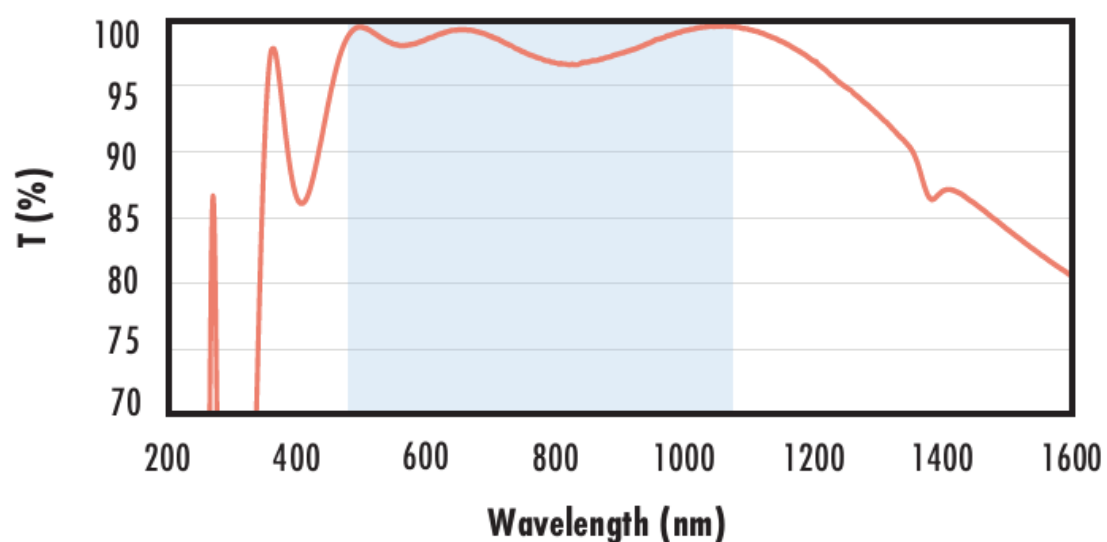
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

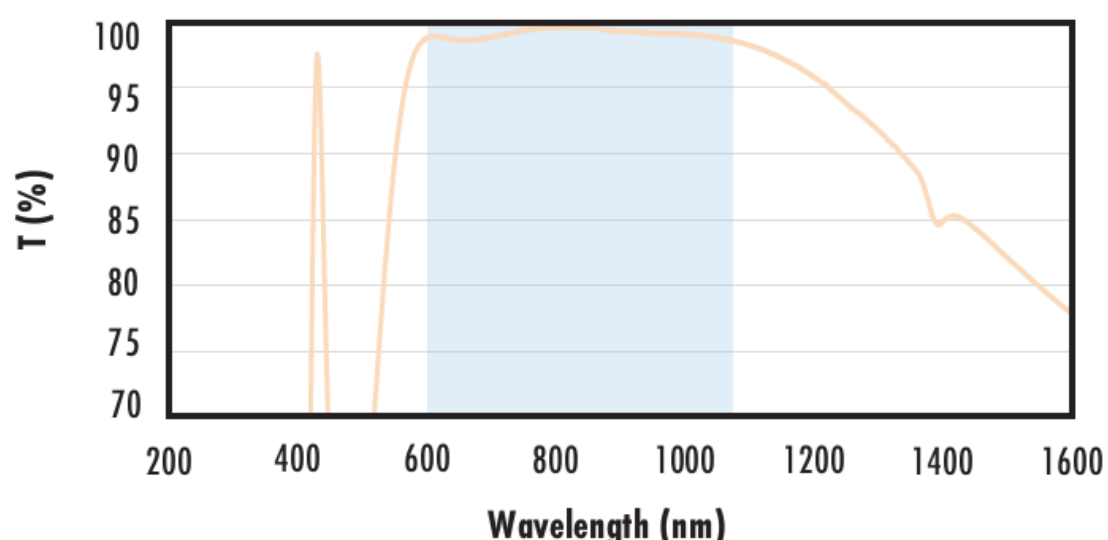
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 0.25\% @ 532nm$$
$$R_{abs} \leq 0.25\% @ 1064nm$$
$$R_{avg} \leq 1.0\% @ 500 - 1100nm$$

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.

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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.

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