

TECHSPEC[®] 50mm Dia., Uncoated, 30' Wedge, Fused Silica Wedged Window



TECHSPEC[®] Fused Silica Wedged Windows

Stock **#34-243** 20+ In Stock

-

1

+

A\$424⁰⁰

ADD TO CART

Volume Pricing	
Qty 1-5	A\$424.00 each
Qty 6-25	A\$340.80 each
Qty 26-49	A\$318.40 each
Need More?	Request Quote

Product Downloads

General	
Wedged Window	Type:
Physical & Mechanical Properties	
45.00	Clear Aperture CA (mm):
50.00 +0.0/-0.10	Diameter (mm):

3.00 ±0.20	Thickness (mm):
+0.0/-0.10	Dimensional Tolerance (mm):
Protective as needed	Bevel:
90.00	Clear Aperture (%):
Fine Ground	Edges:
0.16	Poisson's Ratio:
73	Young's Modulus (GPa):
522.00	Knoop Hardness (kg/mm²):
30' ±10'	Wedge Angle (arcmin):

Optical Properties	
Uncoated	Coating:
Fused Silica (Corning 7980)	Substrate: ☐
1.458	Index of Refraction (n _d):
20-10	Surface Quality:
λ/10 (over 25mm aperture)	Surface Accuracy:
67.8	Abbe Number (v _d):
200 - 2200	Wavelength Range (nm):
λ/10	Surface Flatness (P-V):

Material Properties	
2.20	Density (g/cm³):
0.52 (+5 to +35°C) 0.57 (0 to +200°C) 0.48 (-100 to +200°C)	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):

Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 247:

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

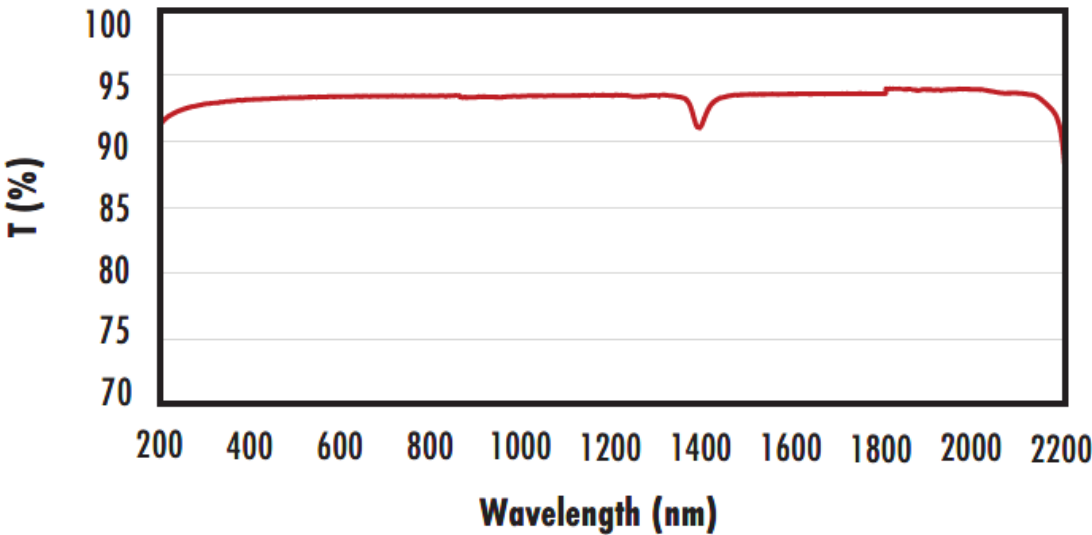
- UV Fused Silica Substrates with a 30 Arcminute Wedge
- λ/10 Surface Flatness and 20-10 Surface Quality
- Prevent Laser Instability When Used in Laser Cavities
- [N-BK7 Wedged Windows](#) and [Fused Silica Flat Windows](#) Also Available

TECHSPEC® Fused Silica Wedged Windows are manufactured from UV grade fused silica and feature a 30 arcminute wedge. The wedge of these windows eliminates Etalon effects by preventing back surface reflections from traveling along the same optical path as the transmitted beam. This protects against laser instability, mode-hopping, and power spikes when used in laser cavities and beam interference effects when used externally. TECHSPEC® Fused Silica Wedged Windows are ideal for use in UV or high power laser applications due to their high UV transmittance and insensitivity to temperature variations. These windows can also be used as beam pick-off optics or beam samplers to monitor laser beam properties such as beam power over time.

Technical Information

FUSED SILICA

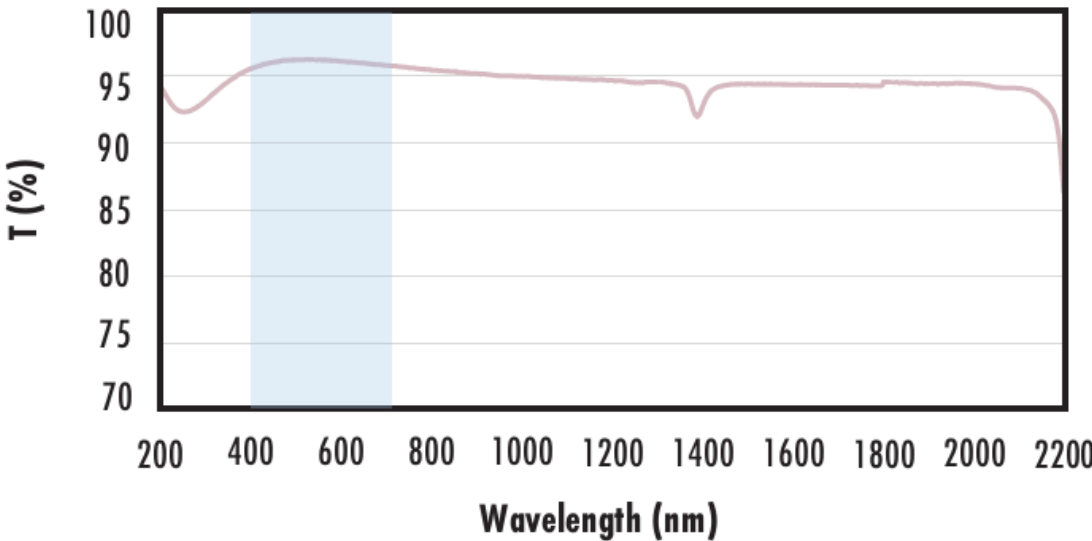
Uncoated Fused Silica
Typical Transmission



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.

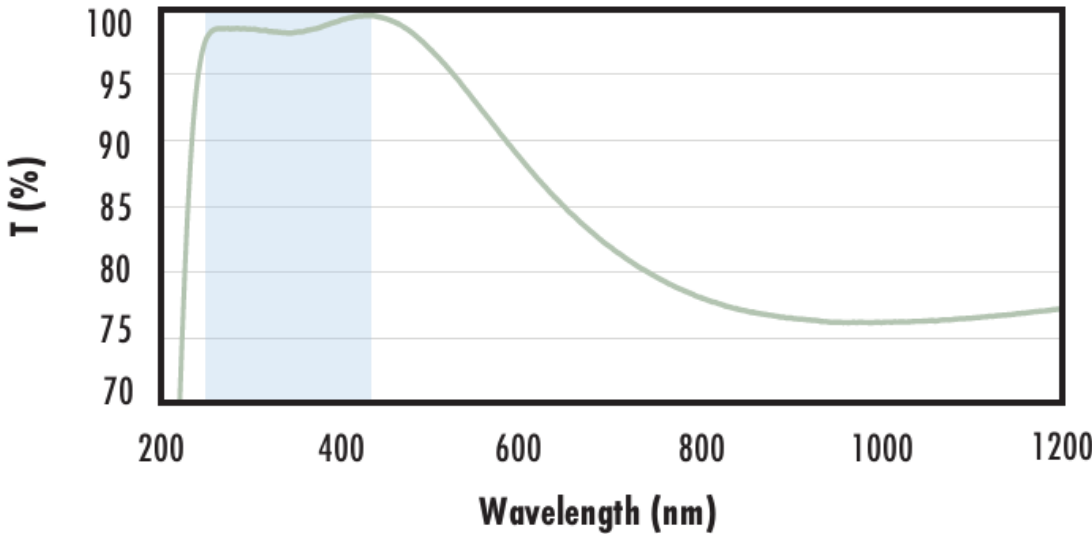
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

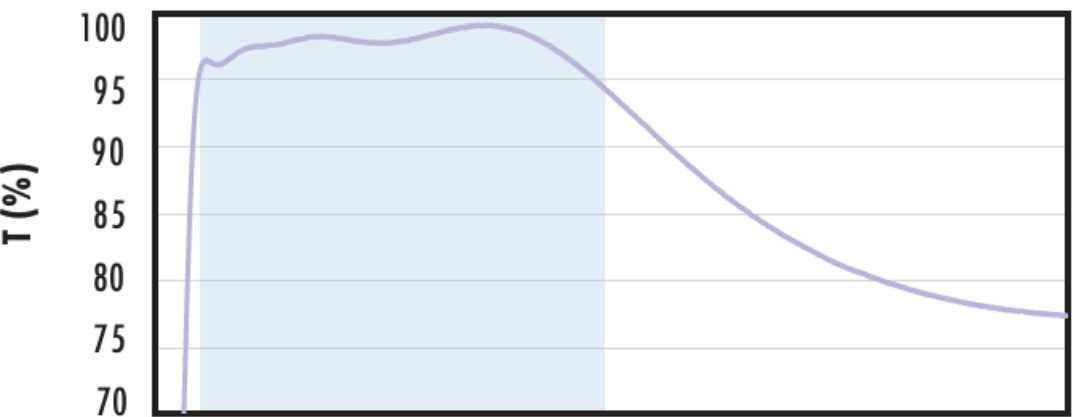
$$R_{avg} \leq 0.75\% \text{ @ } 250 - 425\text{nm}$$

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

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:

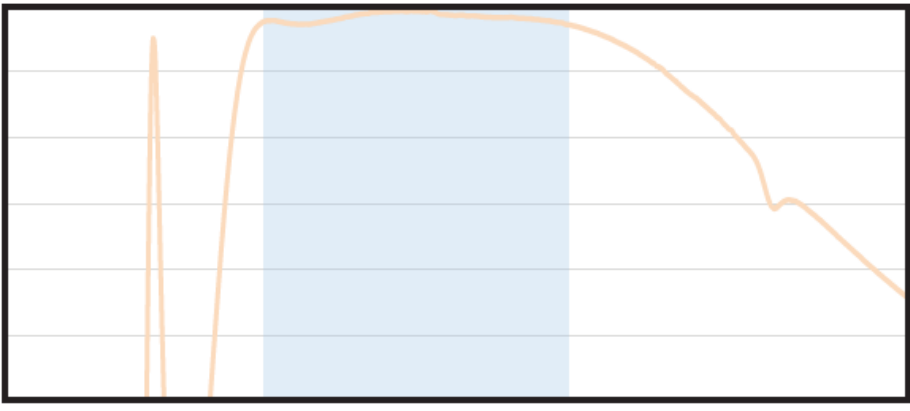
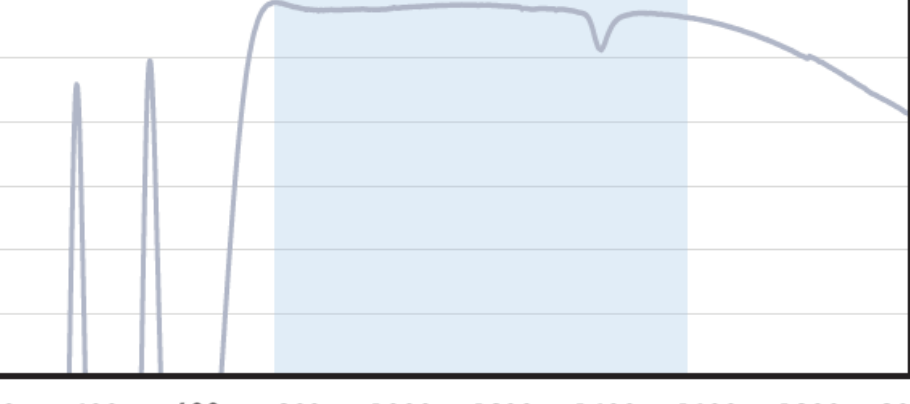
$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

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

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

[Click Here to Download Data](#)

20040060080010001200 Wavelength (nm)		
Fused Silica with VIS-EXT Coating Typical Transmission T (%) 100 95 90 85 80 75 70 200 400 600 800 1000 1200 Wavelength (nm)		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 T (%) 100 95 90 85 80 75 70 200 400 600 800 1000 1200 1400 1600 Wavelength (nm)		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 T (%) 100 95 90 85 80 75 70 200 400 600 800 1000 1200 Wavelength (nm)		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 T (%) 100 95 90 85 80 75 70 200 400 600 800 1000 1200 1400 1600 Wavelength (nm)		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. Click Here to Download Data

Fused Silica with NIR I Coating Typical Transmission <table border="1"><caption>Approximate data for NIR I Coating Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>~70</td></tr><tr><td>400</td><td>~98</td></tr><tr><td>450</td><td>~95</td></tr><tr><td>500</td><td>~90</td></tr><tr><td>600</td><td>~100</td></tr><tr><td>800</td><td>~100</td></tr><tr><td>1000</td><td>~100</td></tr><tr><td>1050</td><td>~100</td></tr><tr><td>1200</td><td>~98</td></tr><tr><td>1400</td><td>~85</td></tr><tr><td>1600</td><td>~78</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	~70	400	~98	450	~95	500	~90	600	~100	800	~100	1000	~100	1050	~100	1200	~98	1400	~85	1600	~78	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. Click Here to Download Data				
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Fused Silica with NIR II Coating Typical Transmission <table border="1"><caption>Approximate data for NIR II Coating Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>~70</td></tr><tr><td>350</td><td>~94</td></tr><tr><td>400</td><td>~90</td></tr><tr><td>500</td><td>~96</td></tr><tr><td>550</td><td>~92</td></tr><tr><td>600</td><td>~90</td></tr><tr><td>750</td><td>~100</td></tr><tr><td>1000</td><td>~100</td></tr><tr><td>1200</td><td>~100</td></tr><tr><td>1400</td><td>~98</td></tr><tr><td>1550</td><td>~100</td></tr><tr><td>1800</td><td>~95</td></tr><tr><td>2000</td><td>~90</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	~70	350	~94	400	~90	500	~96	550	~92	600	~90	750	~100	1000	~100	1200	~100	1400	~98	1550	~100	1800	~95	2000	~90	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: $R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}$ $R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}$ $R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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Compatible Mounts