

TECHSPEC® 125mm Dia., 3mm Thick, NIR I, $\lambda/4$ Fused Silica Window



TECHSPEC® $\lambda/4$ UV Fused Silica Windows

Stock **#29-623** **2 In Stock**

-

1

+

€1.010⁰⁰

ADD TO CART

Volume Pricing	
Qty 1-5	€1.010,00 each
Qty 6-25	€805,00 each
Qty 26-49	€755,00 each
Need More?	Request Quote

i Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):

90.00

Diameter (mm):

125.00 +0.00/-0.20	
3.00 ±0.10	Thickness (mm):
<1	Parallelism (arcmin):
Protective as needed	Bevel:
90	Clear Aperture (%):
Fine Ground	Edges:
0.16	Poisson's Ratio:
73	Young's Modulus (GPa):
522.00	Knoop Hardness (kg/mm²):

Optical Properties

NIR I (600-1050nm)	Coating:
Fused Silica	Substrate: ☐
1.458	Index of Refraction (n _d):
40-20	Surface Quality:
λ/4 (per inch within clear aperture)	Transmitted Wavefront, P-V:
67.8	Abbe Number (v _d):
R _{avg} ≤0.5% @ 600 - 1050nm	Coating Specification:
600 - 1050	Wavelength Range (nm):
7 J/cm² @ 1064nm, 10ns	Damage Threshold, Reference: ☐

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

View	Certificate of Conformance:
------	-----------------------------

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

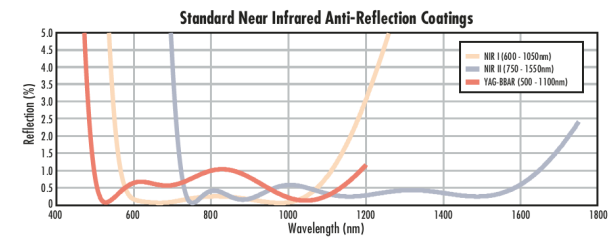
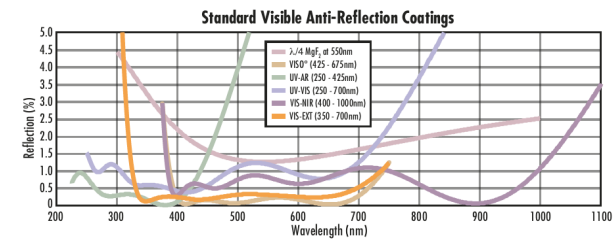
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- Available Uncoated or BBAR Coated for UV, Visible, and NIR
- Ideal for Imaging Applications
- Circular and Rectangular Sizes from 5 to 200mm
- [1λ](#) or [λ/10](#) UV Fused Silica Windows Also Available

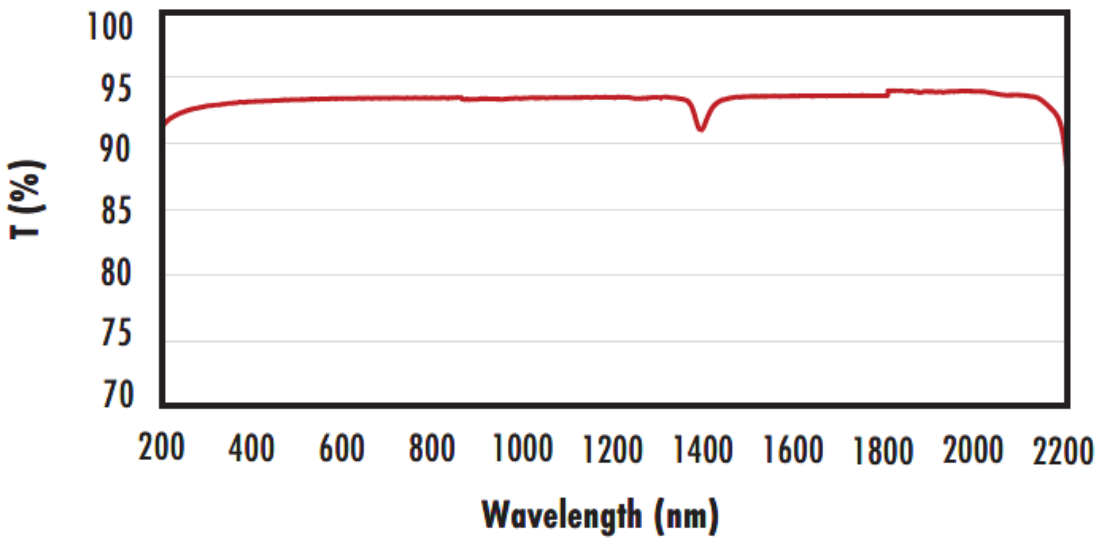
TECHSPEC® λ/4 UV Fused Silica Windows are manufactured with 40-20 surface quality and λ/4 transmitted wavefront error specifications, making them ideal for imaging applications. Featuring UV fused silica substrates, these windows provide high transmission from the ultraviolet (UV) through the visible and near-infrared (NIR). Broadband anti-reflection (BBAR) coating options are available to minimize reflection losses and increase transmission. TECHSPEC λ/4 UV Fused Silica Windows are used in optical imaging applications, in low to medium powered laser applications, and as protective windows, especially in applications requiring transmission of UV light.

Technical Information



FUSED SILICA

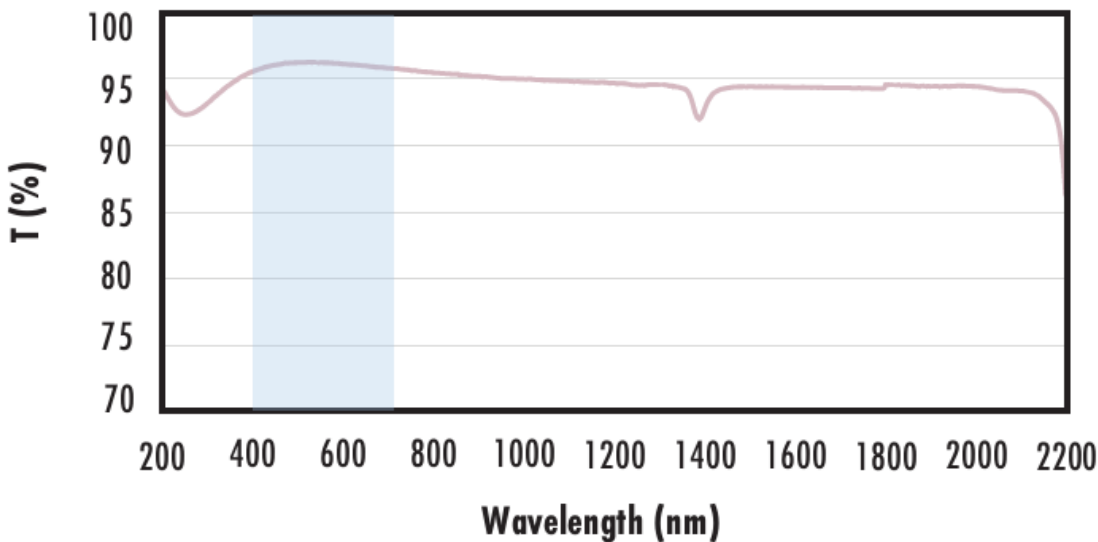
Uncoated Fused Silica
Typical Transmission



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.

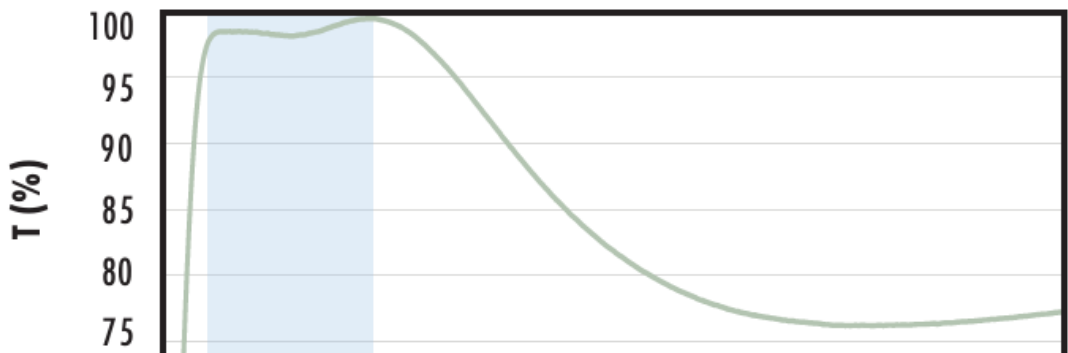
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 1.75\%$ @ 400 - 700nm (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 - 425nm

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

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

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}$$R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-EXT Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-NIR Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$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 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

Wavelength (nm) Fused Silica with YAG-BBAR Coating Typical Transmission <table border="1"><caption>Approximate data for Fused Silica with YAG-BBAR Coating</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>87</td></tr><tr><td>400</td><td>98</td></tr><tr><td>500</td><td>100</td></tr><tr><td>600</td><td>99</td></tr><tr><td>800</td><td>98</td></tr><tr><td>1000</td><td>100</td></tr><tr><td>1200</td><td>98</td></tr><tr><td>1400</td><td>90</td></tr><tr><td>1600</td><td>80</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	87	400	98	500	100	600	99	800	98	1000	100	1200	98	1400	90	1600	80	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		
Wavelength (nm)	Transmission T (%)																								
200	70																								
300	87																								
400	98																								
500	100																								
600	99																								
800	98																								
1000	100																								
1200	98																								
1400	90																								
1600	80																								
Wavelength (nm) Fused Silica with NIR I Coating Typical Transmission <table border="1"><caption>Approximate data for Fused Silica with NIR I Coating</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>500</td><td>100</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>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	500	100	600	100	800	100	1000	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: $R_{avg} \leq 0.5\%$ @ 600 - 1050nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data				
Wavelength (nm)	Transmission T (%)																								
200	70																								
400	98																								
500	100																								
600	100																								
800	100																								
1000	100																								
1200	98																								
1400	85																								
1600	78																								
Wavelength (nm) Fused Silica with NIR II Coating Typical Transmission <table border="1"><caption>Approximate data for Fused Silica with NIR II Coating</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>93</td></tr><tr><td>500</td><td>95</td></tr><tr><td>600</td><td>100</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	400	93	500	95	600	100	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: $R_{abs} \leq 1.5\%$ @ 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
Wavelength (nm)	Transmission T (%)																								
200	70																								
400	93																								
500	95																								
600	100																								
750	100																								
1000	100																								
1200	100																								
1400	98																								
1550	100																								
1800	95																								
2000	90																								