

TECHSPEC® 50mm Dia., 4mm Thick, NIR II Coated, λ /4 Fused Silica Window



TECHSPEC® λ /4 UVFused Silica Windows

Stock **#25-661** 9 In Stock

-

1

+

S\$330⁴⁰

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Volume Pricing	
Qty 1-5	S\$330.40 each
Qty 6-25	S\$263.20 each
Qty 26-49	S\$246.40 each
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Product Downloads

General	
Protective Window	Type:
Physical & Mechanical Properties	
Protective as needed	Bevel:
90	Clear Aperture (%):

45.00	Clear Aperture CA (mm):
50.00 +0.00/-0.10	Diameter (mm):
4.00 ±0.10	Thickness (mm):
Fine Ground	Edges:
522.00	Knoop Hardness (kg/mm²):
<1	Parallelism (arcmin):
0.16	Poisson's Ratio:
73	Young's Modulus (GPa):

Optical Properties	
67.8	Abbe Number (v _d):
NIR II (750-1550nm)	Coating:
Coating Specification: R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm	
1.458	Index of Refraction (n _d):
Fused Silica (Corning 7980)	Substrate:
40-20	Surface Quality:
λ/4	Transmitted Wavefront, P-V:
750 - 1550	Wavelength Range (nm):
Damage Threshold, Reference: ☐ 8 J/cm² @ 1064nm, 10ns	

Material Properties	
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)	
2.20	Density (g/cm³):

Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	REACH 241:

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: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}$ 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. 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>1100</td><td>100</td></tr><tr><td>1200</td><td>98</td></tr><tr><td>1400</td><td>88</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	1100	100	1200	98	1400	88	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: $R_{\text{abs}} \leq 0.25\%$ @ 532nm $R_{\text{abs}} \leq 0.25\%$ @ 1064nm $R_{\text{avg}} \leq 1.0\%$ @ 500 - 1100nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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Custom

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

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