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TECHSPEC®

40mm Dia., 4mm Thick, NIR II Coated, λ /4 Fused Silica Window



TECHSPEC® λ /4 UVFused Silica Windows

Stock **#25-660** **1 In Stock**

-

1

+

£169⁰⁰

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Volume Pricing	
Qty 1-5	£169.60 each
Qty 6-25	£134.40 each
Qty 26-49	£126.40 each
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i Prices shown are exclusive of VAT/local taxes

Product Downloads

77.00	#Sorting:
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General

Protective Window	Type:
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Physical & Mechanical Properties

Clear Aperture CA (mm):

36.00	
	Diameter (mm):
40.00 +0.00/-0.10	
	Thickness (mm):
4.00 ±0.10	
	Parallelism (arcmin):
<1	
	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:
NIR II (750-1550nm)	
	Substrate:
Fused Silica (Corning 7980)	
	Index of Refraction (n _d):
1.458	
	Surface Quality:
40-20	
	Transmitted Wavefront, P-V:
λ/4	
	Abbe Number (v _d):
67.8	
	Coating Specification:
R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm	
	Wavelength Range (nm):
750 - 1550	
	Damage Threshold, Reference:
8 J/cm² @ 1064nm, 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)	

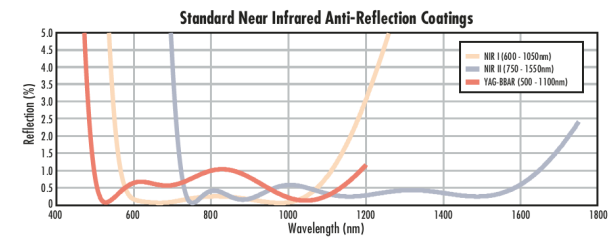
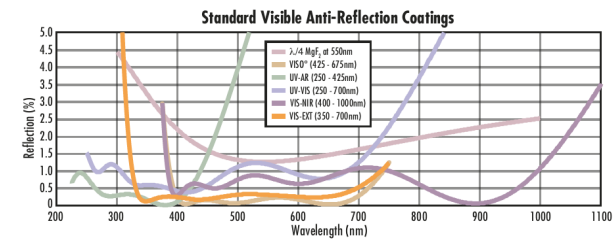
Regulatory Compliance	
	RoHS 2015:
Compliant	
	Certificate of Conformance:
View	
	REACH 241:
Compliant	

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 <table border="1"><caption>Approximate data for Uncoated Fused Silica Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>92</td></tr><tr><td>400</td><td>93</td></tr><tr><td>600</td><td>93</td></tr><tr><td>800</td><td>93</td></tr><tr><td>1000</td><td>93</td></tr><tr><td>1200</td><td>93</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>93</td></tr><tr><td>1800</td><td>93</td></tr><tr><td>2000</td><td>93</td></tr><tr><td>2200</td><td>90</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	92	400	93	600	93	800	93	1000	93	1200	93	1400	92	1600	93	1800	93	2000	93	2200	90	Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra. Click Here to Download Data		
Wavelength (nm)	Transmission T (%)																										
200	92																										
400	93																										
600	93																										
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2200	90																										
Fused Silica with MgF₂ Coating Typical Transmission <table border="1"><caption>Approximate data for MgF2 Coated Fused Silica Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>93</td></tr><tr><td>400</td><td>96</td></tr><tr><td>600</td><td>96</td></tr><tr><td>800</td><td>95</td></tr><tr><td>1000</td><td>95</td></tr><tr><td>1200</td><td>95</td></tr><tr><td>1400</td><td>93</td></tr><tr><td>1600</td><td>95</td></tr><tr><td>1800</td><td>95</td></tr><tr><td>2000</td><td>95</td></tr><tr><td>2200</td><td>90</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	93	400	96	600	96	800	95	1000	95	1200	95	1400	93	1600	95	1800	95	2000	95	2200	90	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		
Wavelength (nm)	Transmission T (%)																										
200	93																										
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Fused Silica with UV-AR Coating Typical Transmission <table border="1"><caption>Approximate data for UV-AR Coated Fused Silica Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>75</td></tr><tr><td>250</td><td>98</td></tr><tr><td>400</td><td>99</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>95</td></tr><tr><td>1000</td><td>85</td></tr><tr><td>1200</td><td>78</td></tr><tr><td>1400</td><td>75</td></tr><tr><td>1600</td><td>75</td></tr><tr><td>1800</td><td>75</td></tr><tr><td>2000</td><td>75</td></tr><tr><td>2200</td><td>76</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	75	250	98	400	99	600	98	800	95	1000	85	1200	78	1400	75	1600	75	1800	75	2000	75	2200	76	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
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200	75																										
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2200	76																										

	
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

