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TECHSPEC[®] 100mm Dia. 8mm Thick MgF₂ Coated, 1λ Fused Silica Window



Stock **#11-930** 5 In Stock

-

1

+

₹33,668

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Volume Pricing	
Qty 1-5	₹33,668 each
Qty 6-25	₹26,809 each
Qty 26-49	₹25,122 each
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Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

90.00

Clear Aperture CA (mm):

100.00 +0.00/-0.20

Diameter (mm):

8.00 ±0.38	Thickness (mm):
<5	Parallelism (arcmin):
+0.00/-0.20	Dimensional Tolerance (mm):
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

MgF ₂ (400-700nm)	Coating:
Fused Silica (Corning 7980)	Substrate:
1.458	Index of Refraction (n _d):
60-40	Surface Quality:
67.8	Abbe Number (v _d):
R _{avg} ≤1.75% @ 400 - 700nm	Coating Specification:
400 - 700	Wavelength Range (nm):
1λ	Surface Flatness (P-V):
10 J/cm² @ 532nm, 10ns	Damage Threshold, By Design:

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):
7980 0G	Fused Silica Grade:

Regulatory Compliance

Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:
United States	Country of Origin:
Edmund Optics India Private Limited	Imported By:

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](#).

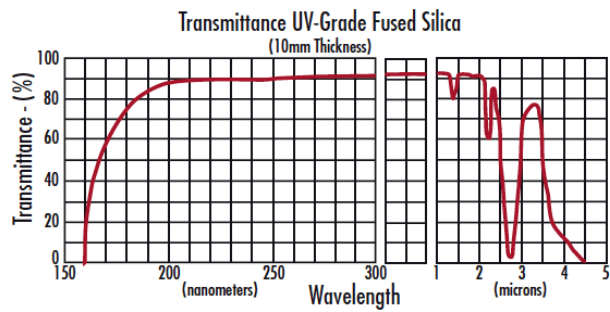
Product Details

- 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

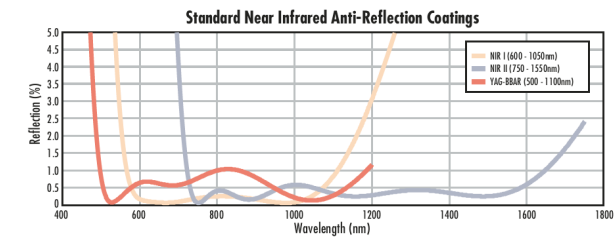
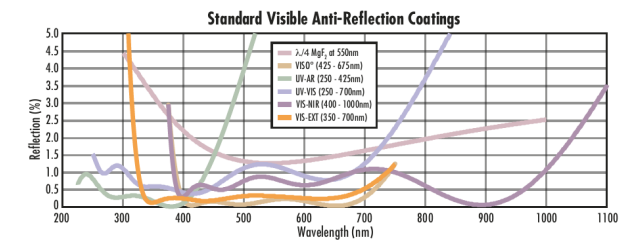
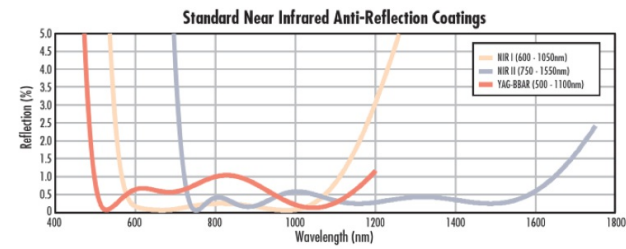
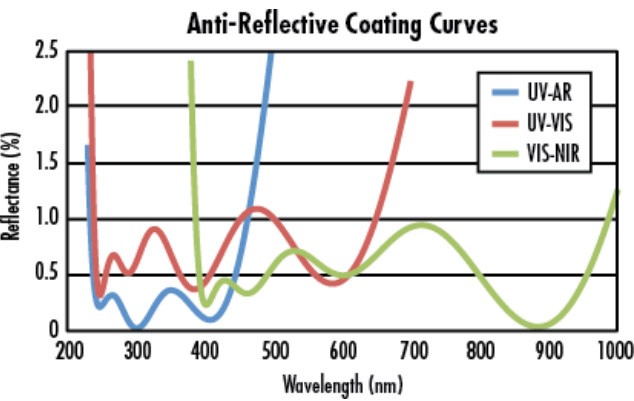
TECHSPEC® 1λ UV Fused Silica Windows are precision manufactured using UV-grade synthetic fused silica. In addition to superior transmission, the synthetic fused silica of these optical windows exhibits higher thermal properties, exceptional purity, and excellent environmental durability for demanding applications. The windows are ideal for cost-sensitive broadband applications and are available uncoated or with broadband anti-reflection coatings. TECHSPEC® 1λ 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

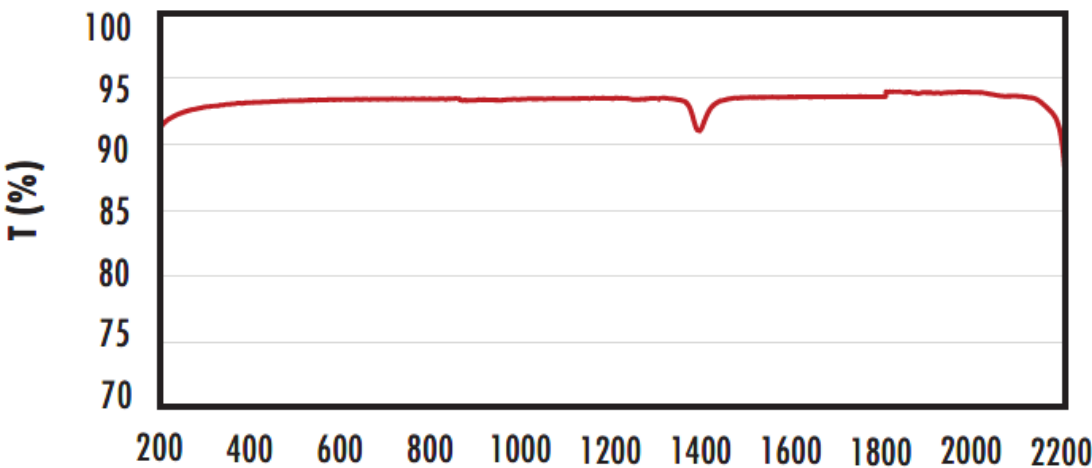


UV FS Transmission Curve



FUSED SILICA

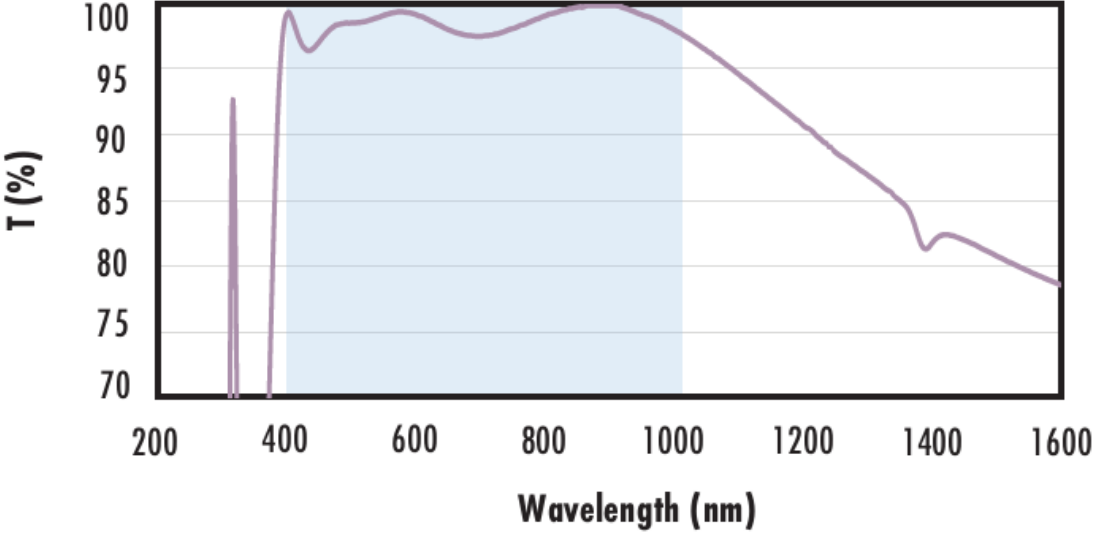
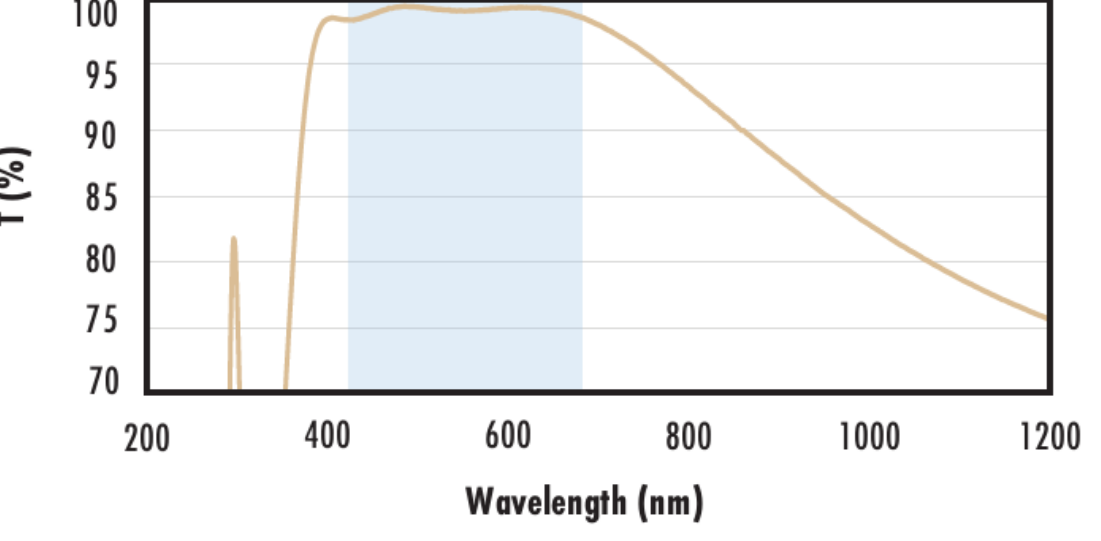
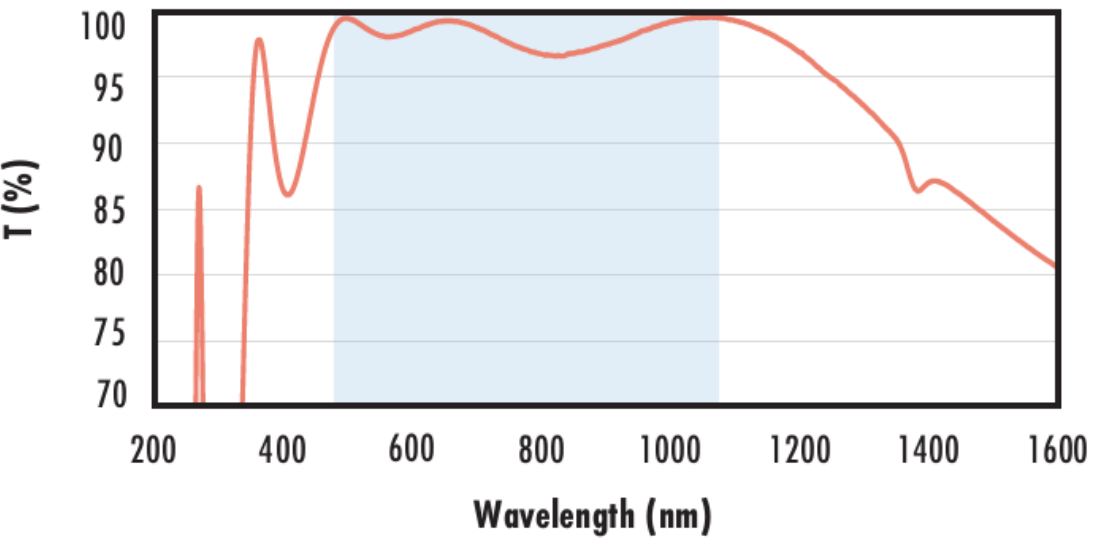
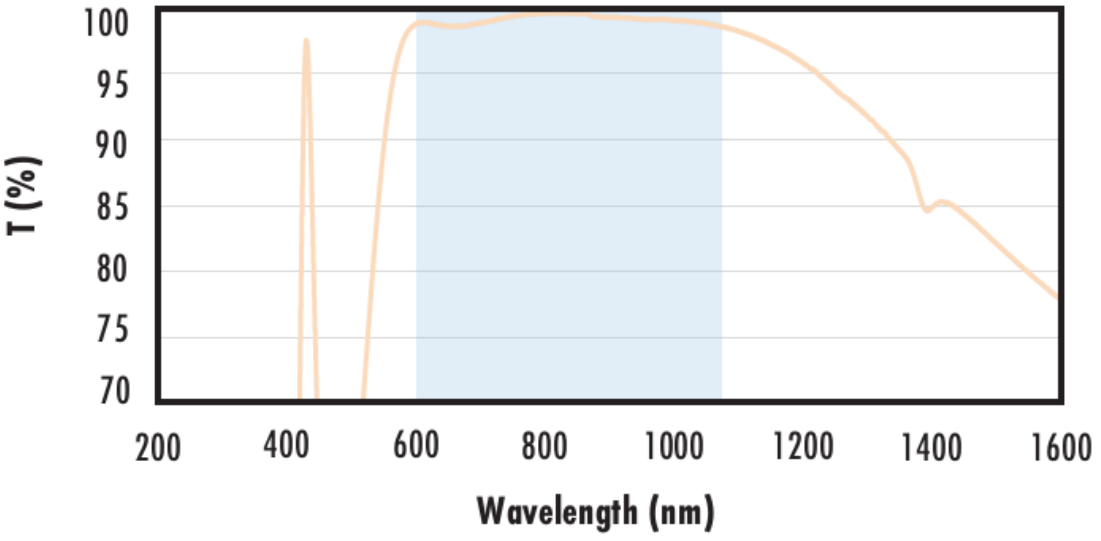
Uncoated Fused Silica
Typical Transmission

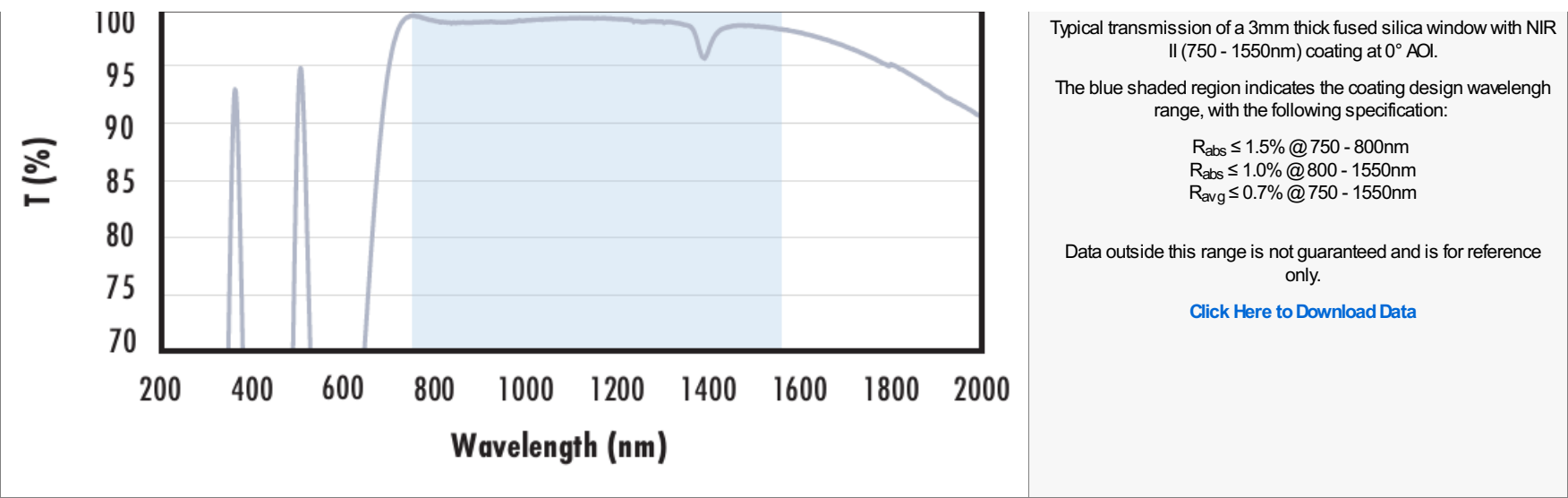


Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.

[Click Here to Download Data](#)

Wavelength (nm)		
Fused Silica with MgF₂ Coating Typical Transmission This graph shows the typical transmission spectrum for a 3mm thick fused silica window with a MgF₂ (400-700nm) coating at 0° AOI. The x-axis represents Wavelength (nm) from 200 to 2200, and the y-axis represents Transmittance T (%) from 70 to 100. A blue shaded region indicates the design wavelength range from approximately 380 nm to 720 nm. The transmittance is generally high, around 95%, with some minor dips. 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} ≤ 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 This graph shows the typical transmission spectrum for a 3mm thick fused silica window with a UV-AR (250-425nm) coating at 0° AOI. The x-axis represents Wavelength (nm) from 200 to 1200, and the y-axis represents Transmittance T (%) from 70 to 100. A blue shaded region indicates the design wavelength range from approximately 260 nm to 440 nm. The transmittance is near 100% in the design range and decreases significantly beyond 600 nm. 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} ≤ 1.0% @ 250 - 425nm R_{avg} ≤ 0.75% @ 250 - 425nm R_{avg} ≤ 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 This graph shows the typical transmission spectrum for a 3mm thick fused silica window with a UV-VIS (250-700nm) coating at 0° AOI. The x-axis represents Wavelength (nm) from 200 to 1200, and the y-axis represents Transmittance T (%) from 70 to 100. A blue shaded region indicates the design wavelength range from approximately 260 nm to 680 nm. The transmittance is high across the entire visible spectrum and begins to drop after 700 nm. 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} ≤ 1.0% @ 350 - 450nm R_{avg} ≤ 1.5% @ 250 - 700nm 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 This graph shows the typical transmission spectrum for a 3mm thick fused silica window with a VIS-EXT (350-700nm) coating at 0° AOI. The x-axis represents Wavelength (nm) from 200 to 1200, and the y-axis represents Transmittance T (%) from 70 to 100. A blue shaded region indicates the design wavelength range from approximately 340 nm to 680 nm. The transmittance is very high (near 100%) in the design range and starts to decline after 700 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} ≤ 0.5% @ 350 - 700nm 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
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: $R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}$ $R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$ $R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$ 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 	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
Fused Silica with NIR II Coating Typical Transmission	



Coating Curves

Compatible Mounts