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TECHSPEC[®] 18mm Dia. x 20mm FL, VIS-EXT Coated, UV Double-Convex Lens



UV Fused Silica Double-Convex (DCX) Lenses



Stock **#22-208** 4 In Stock

☐ Other Coating Options

-

1

+

₹11,755

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Volume Pricing	
Qty 1-5	₹11,755 each
Qty 6-25	₹9,420 each
Qty 26-49	₹8,797 each
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General

Double-Convex Lens

Type:

Physical & Mechanical Properties

Diameter (mm):

18.00 +0.0/-0.025	
<1	Centering (arcmin):
	Bevel:
Protective as needed	
7.64 ±0.10	Center Thickness CT (mm):
	Edge Thickness ET (mm):
2.50	
17.00	Clear Aperture CA (mm):

Optical Properties	
17.18	Back Focal Length BFL (mm):
20.00	Effective Focal Length EFL (mm):
	Coating:
VIS-EXT (350-700nm)	
	Coating Specification:
R _{avg} <0.5% @ 350 - 700nm	
	Substrate: ☐
Fused Silica (Corning 7980)	
	Surface Quality:
40-20	
	Power (P-V) @ 632.8nm:
1.5λ	
	Irregularity (P-V) @ 632.8nm:
λ/4	
	Radius R ₁ =R ₂ (mm):
17.05	
	f/#:
1.11	
	Focal Length Specification Wavelength (nm):
587.6	
	Focal Length Tolerance (%):
±1	
	Numerical Aperture NA:
0.45	
	Wavelength Range (nm):
350 - 700	
	Damage Threshold, Reference: ☐
5 J/cm ² @ 532nm, 10ns	

Regulatory Compliance	
	RoHS 2015:
Compliant	
	Certificate of Conformance:
View	
	Reach 235:
Compliant	
	Country of Origin:
Japan	
	Imported By:
Edmund Optics India Private Limited	

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

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- Precision Fused Silica Substrate

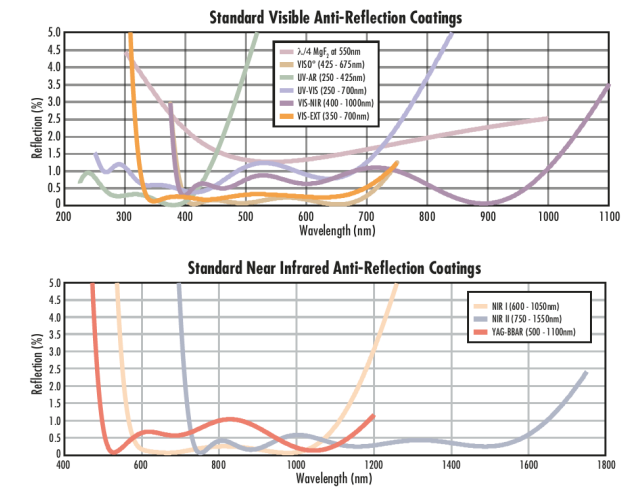
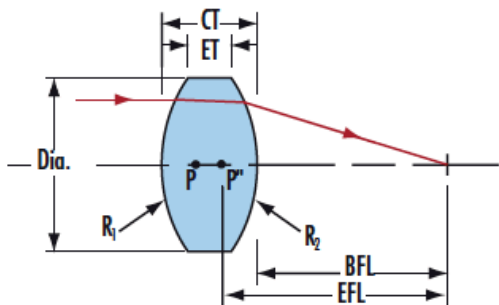
TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging

applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or canceled due to the symmetric lens design. TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses have a precision fused silica substrate. These lenses are available uncoated or with UV-AR, UV-VIS, VIS-EXT, VIS-NIR, VIS 0°, NIR I, or NIR II coatings.

Technical Information

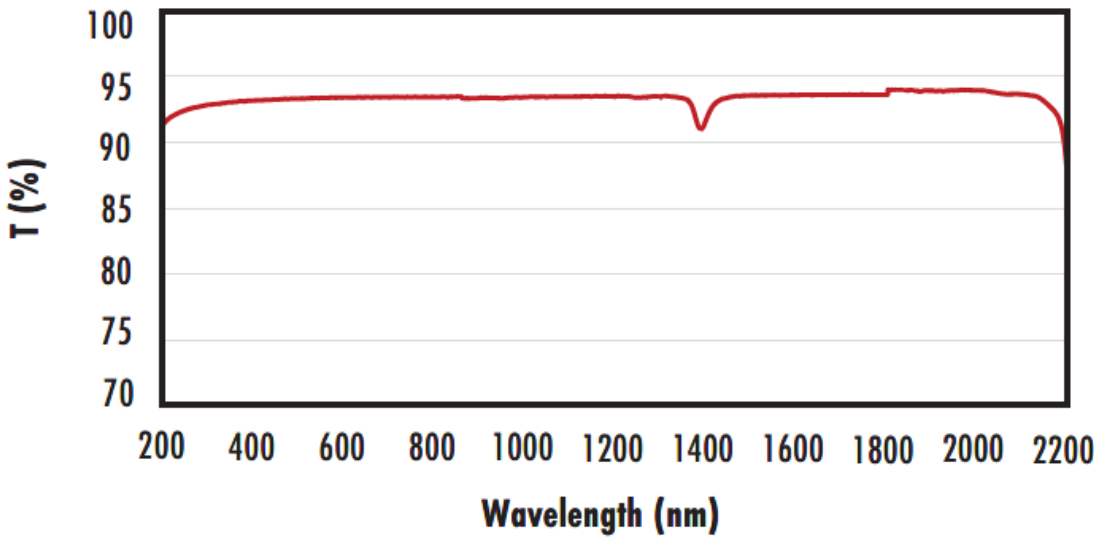


UV FS Transmission Curve



FUSED SILICA

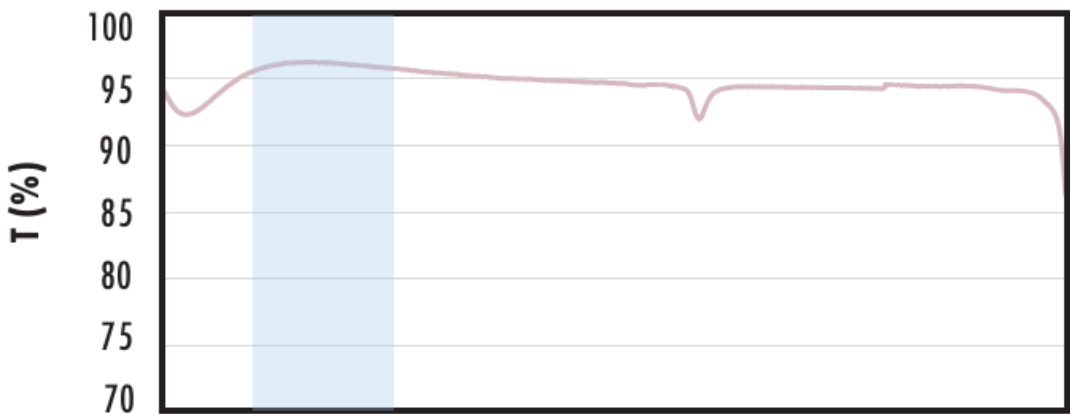
Uncoated Fused Silica
Typical Transmission



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

[Click Here to Download Data](#)

Fused Silica with MgF₂ Coating
Typical Transmission



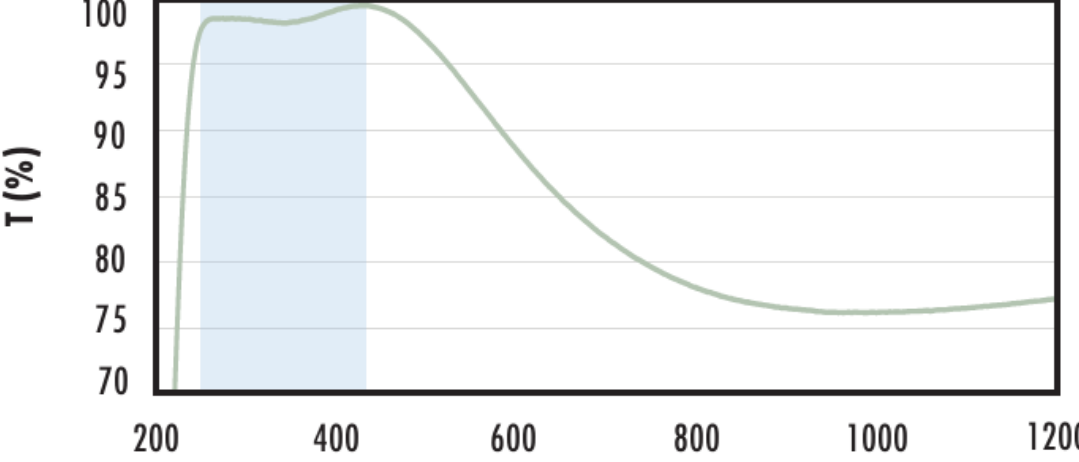
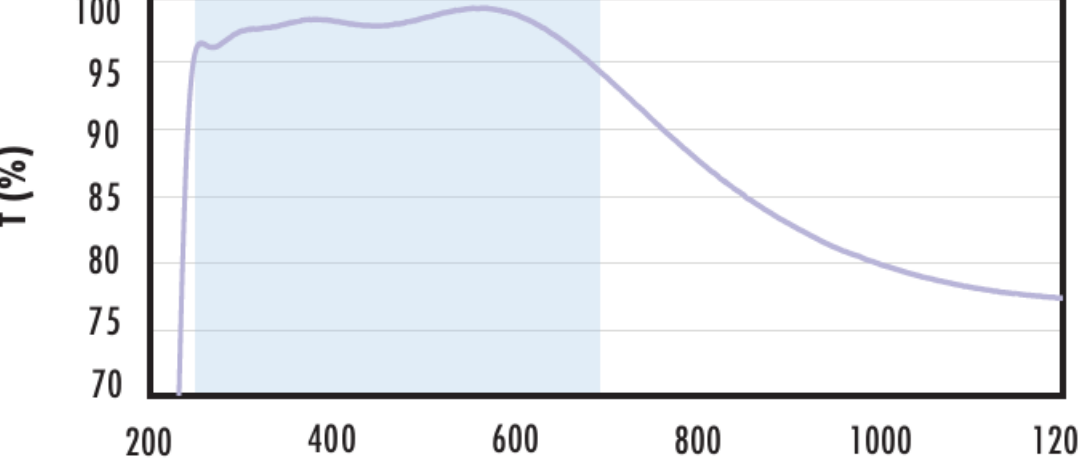
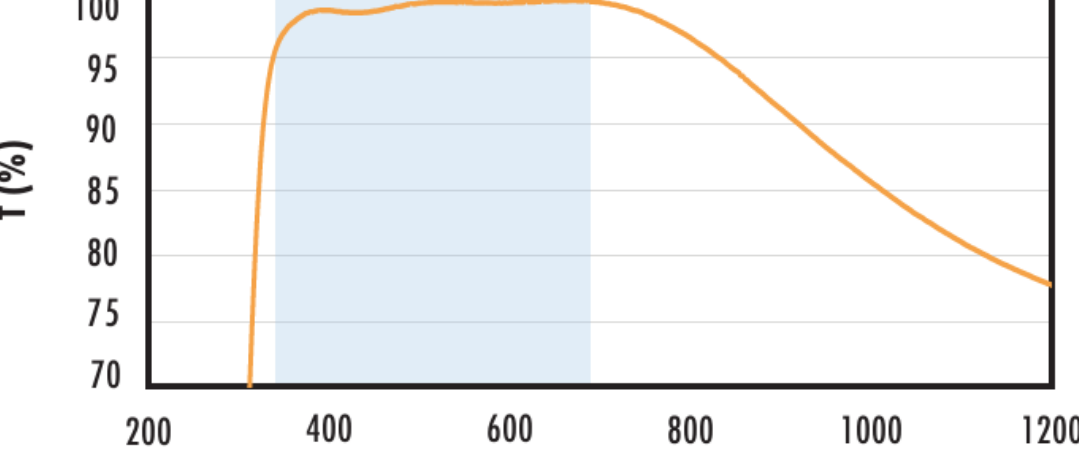
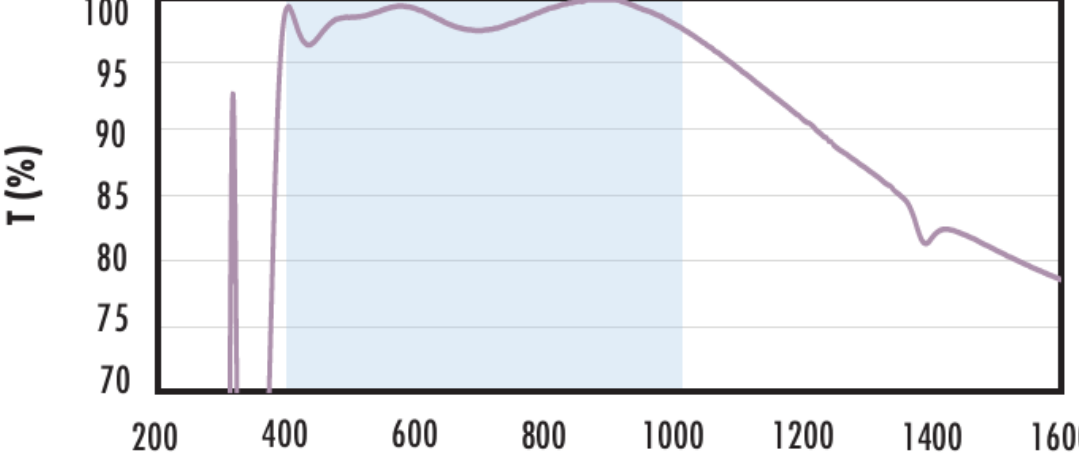
Typical transmission of a 3mm thick fused silica window with MgF₂ (400-700nm) coating at 0° AOI.

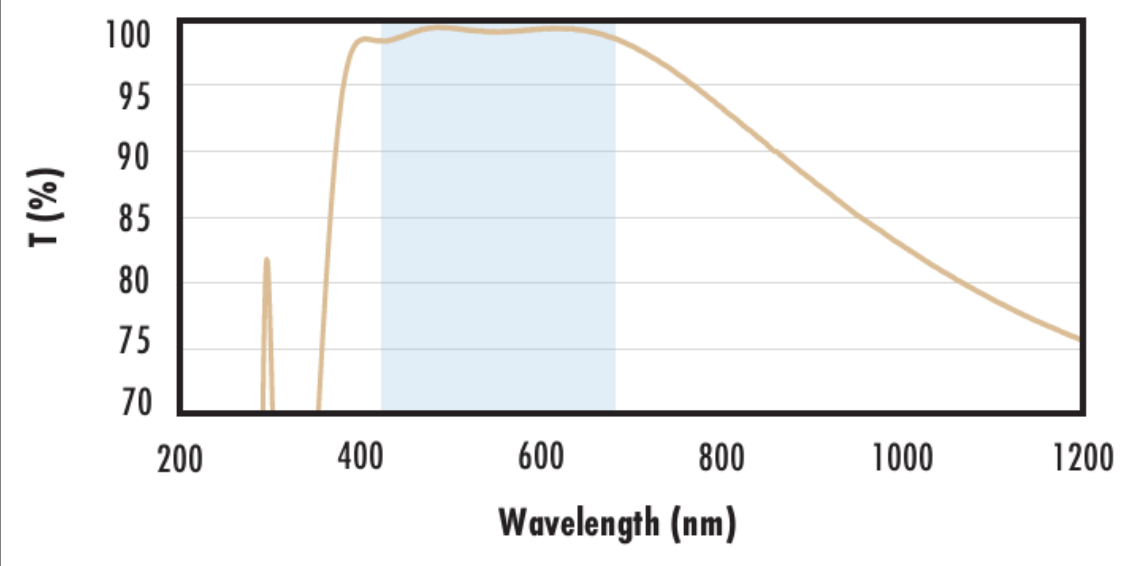
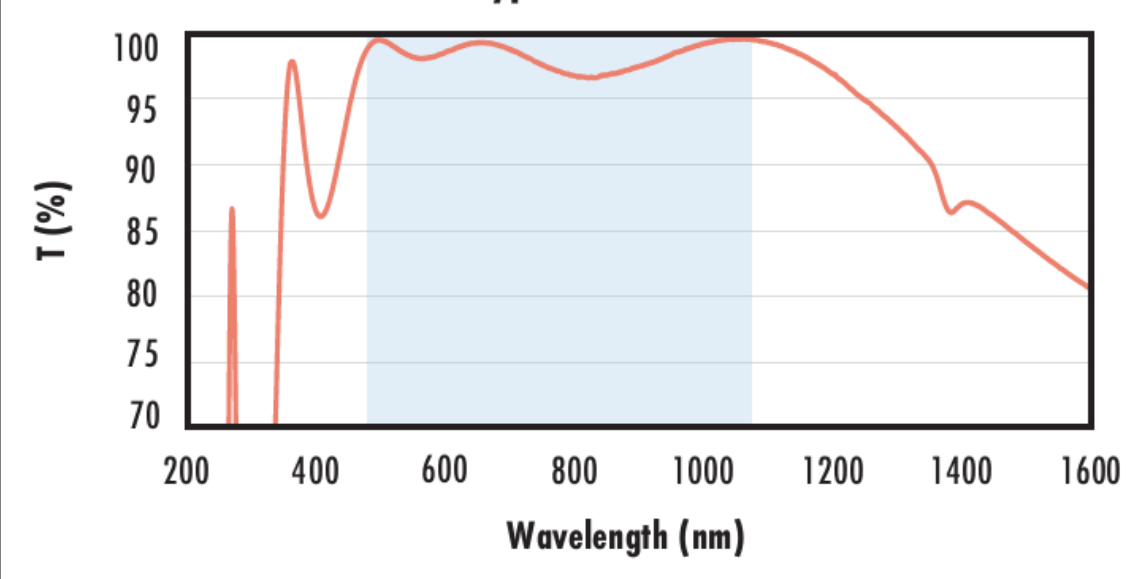
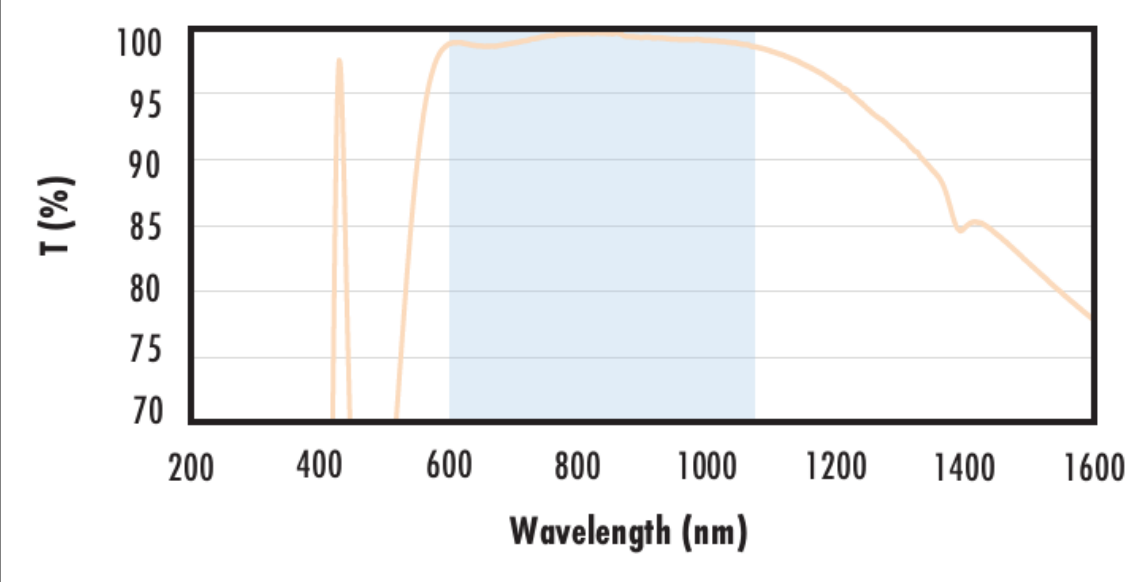
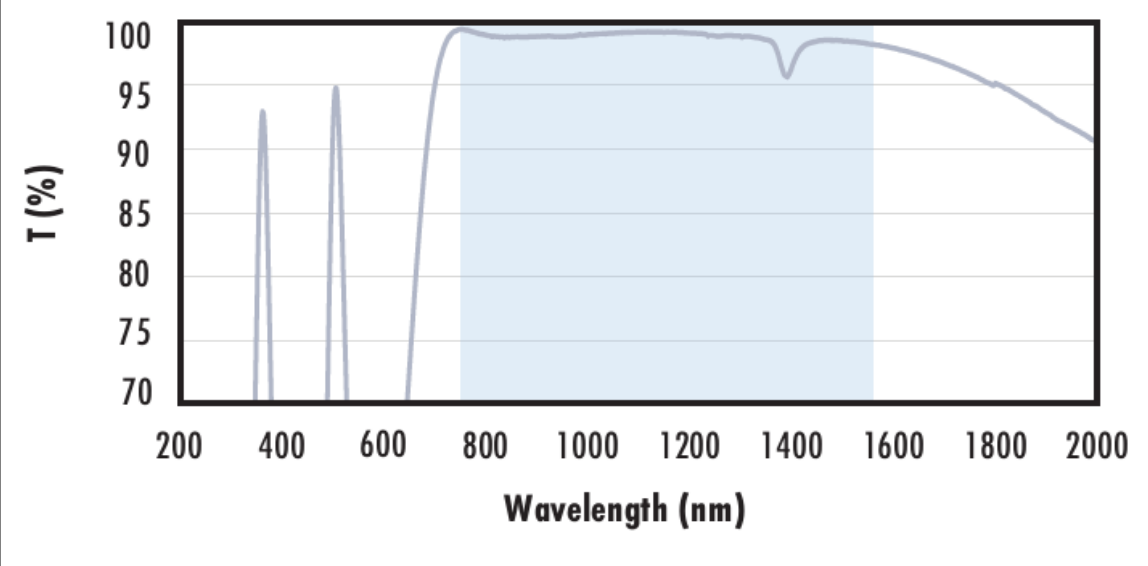
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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2004006008001000120014001600180020002200 Wavelength (nm)	
Fused Silica with UV-AR Coating Typical Transmission  Wavelength (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} \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  Wavelength (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} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-EXT Coating Typical Transmission  Wavelength (nm)	Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-NIR Coating Typical Transmission  Wavelength (nm)	Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$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 	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: $R_{avg} \leq 0.4\% @ 425 - 675nm$ 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: $R_{abs} \leq 0.25\% @ 532nm$ $R_{abs} \leq 0.25\% @ 1064nm$ $R_{avg} \leq 1.0\% @ 500 - 1100nm$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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: $R_{avg} \leq 0.5\% @ 600 - 1050nm$ 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 	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

