

TECHSPEC[®] 30mm Dia. x 50mm FL, NIR II Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock #18-231 10 In Stock

-

1

+

₹15,103

ADD TO CART

Volume Pricing	
Qty 1-5	₹15,103 each
Qty 6-25	₹12,067 each
Qty 26-49	₹11,366 each
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SPECIFICATIONS

General

Type:

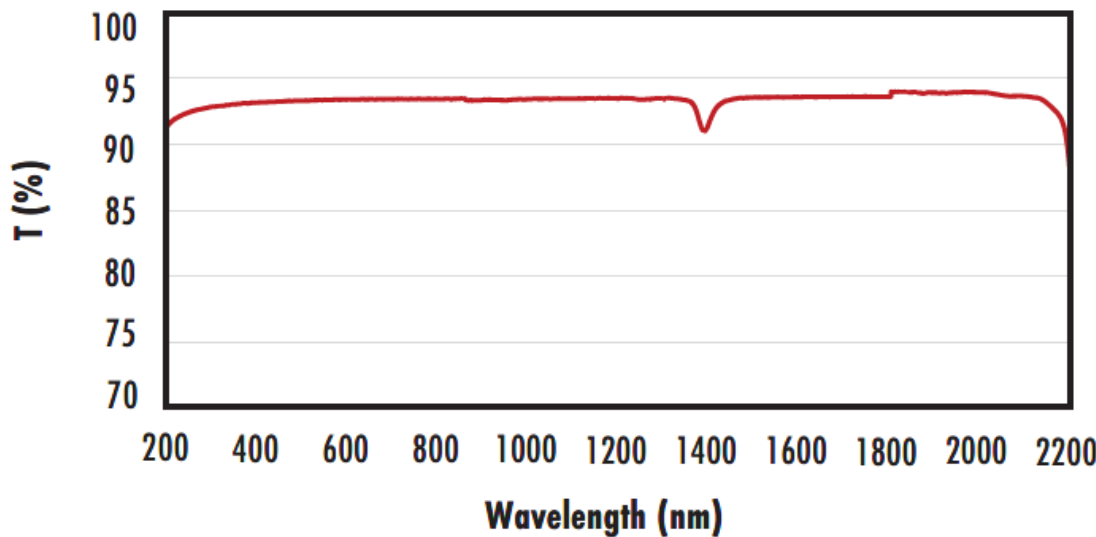
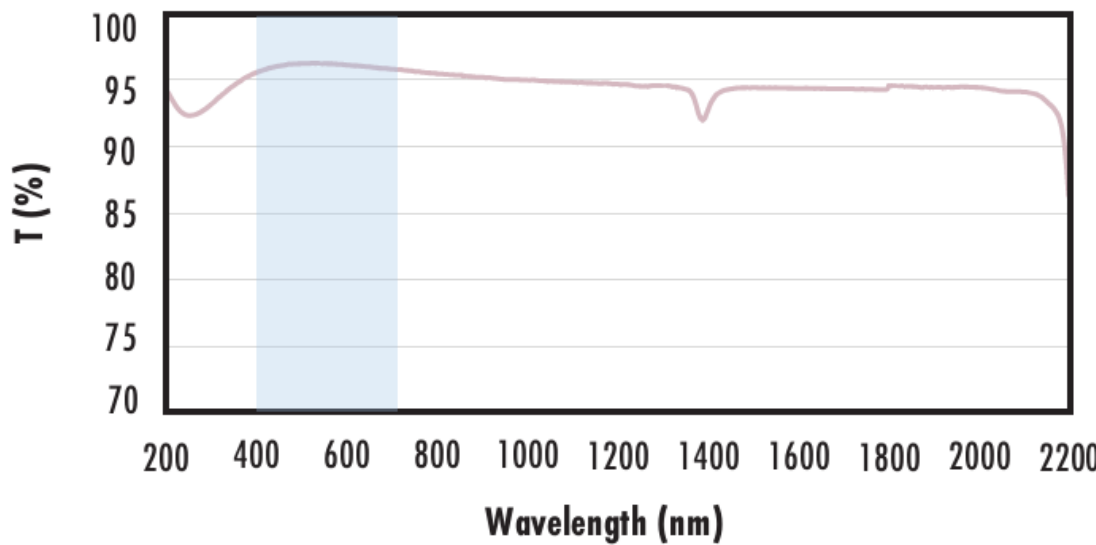
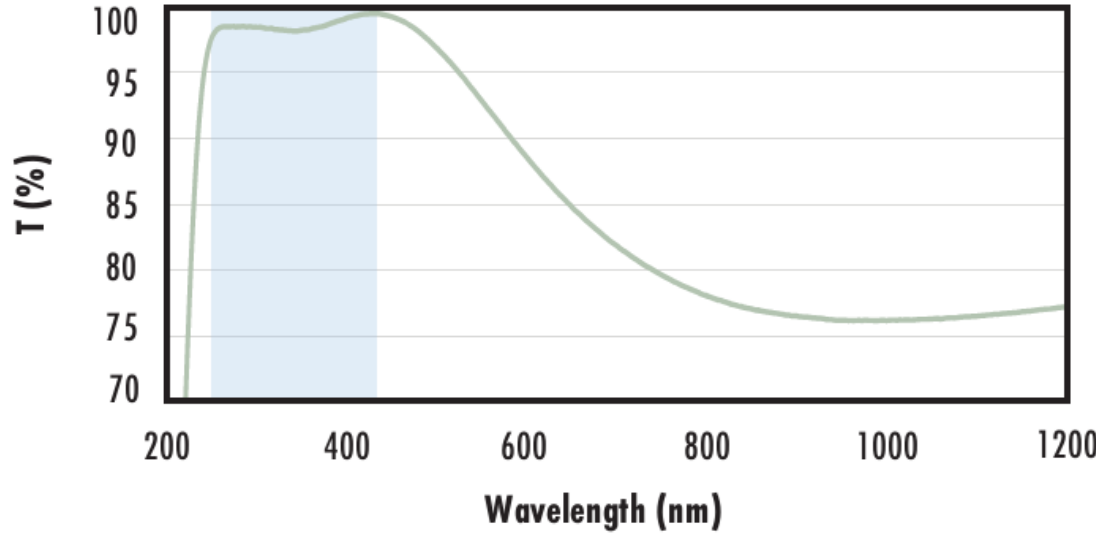
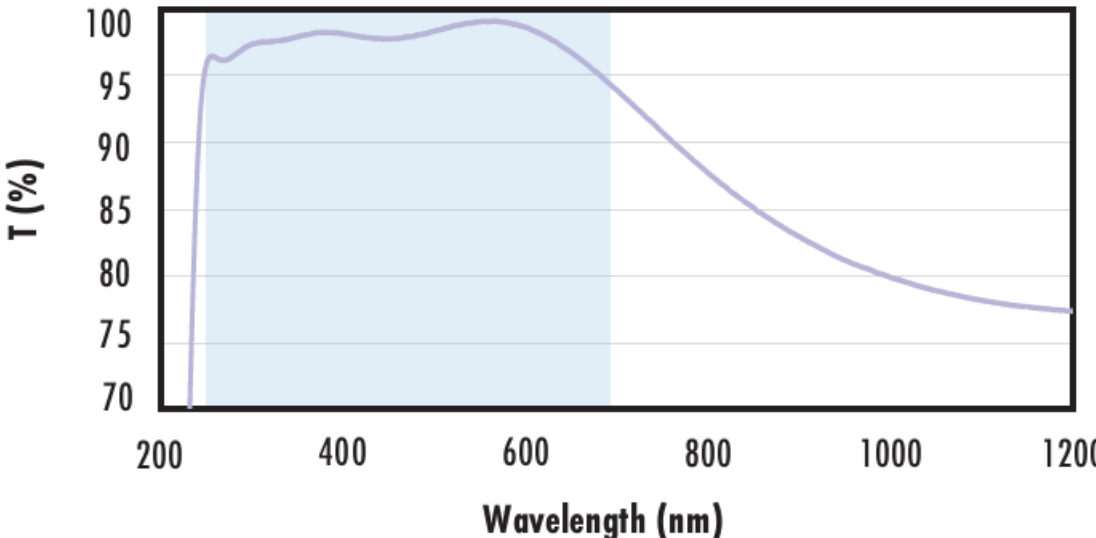
Plano-Convex Lens	
Physical & Mechanical Properties	
30.00 -0.025	Diameter (mm):
<1	Centering (arcmin):
7.00 ±0.10	Center Thickness CT (mm):
1.41	Edge Thickness ET (mm):
28.5	Clear Aperture CA (mm):
Protective as needed	Bevel:
Optical Properties	
50.00 @ 587.6nm	Effective Focal Length EFL (mm):
45.2	Back Focal Length BFL (mm):
NIR II (750-1550nm)	Coating:
R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm	Coating Specification:
Fused Silica (Corning 7980)	Substrate: ☐
40-20	Surface Quality:
3 Rings	Power (P-V) @ 632.8nm:
0.5 Rings	Irregularity (P-V) @ 632.8nm:
±1	Focal Length Tolerance (%):
22.92	Radius R ₁ (mm):
1.67	f/#:
0.30	Numerical Aperture NA:
750 - 1550	Wavelength Range (nm):
8 J/cm ² @ 1064nm, 10ns	Damage Threshold, By Design: ☐
Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

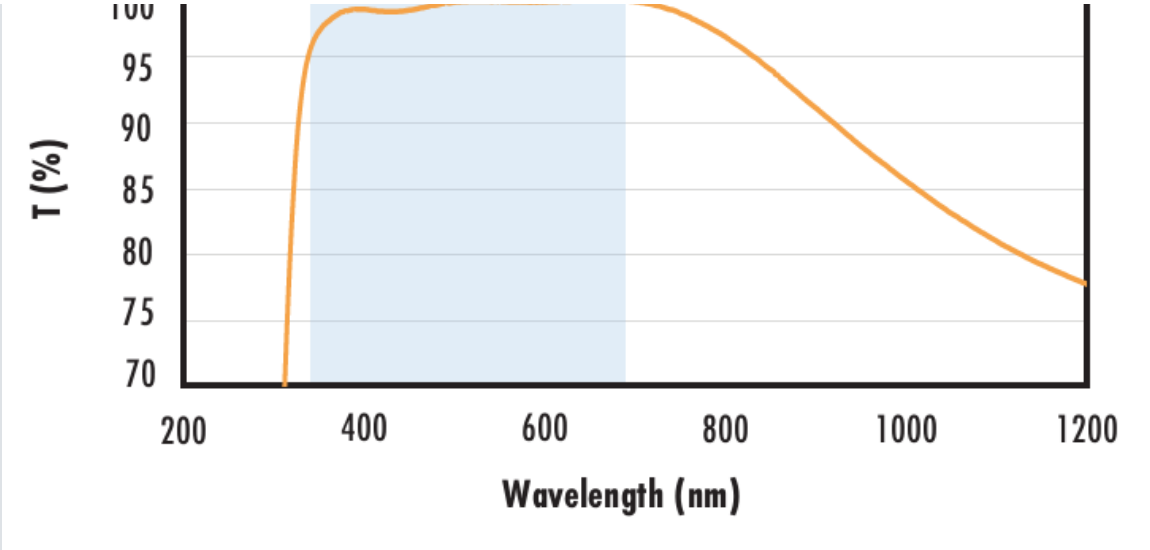
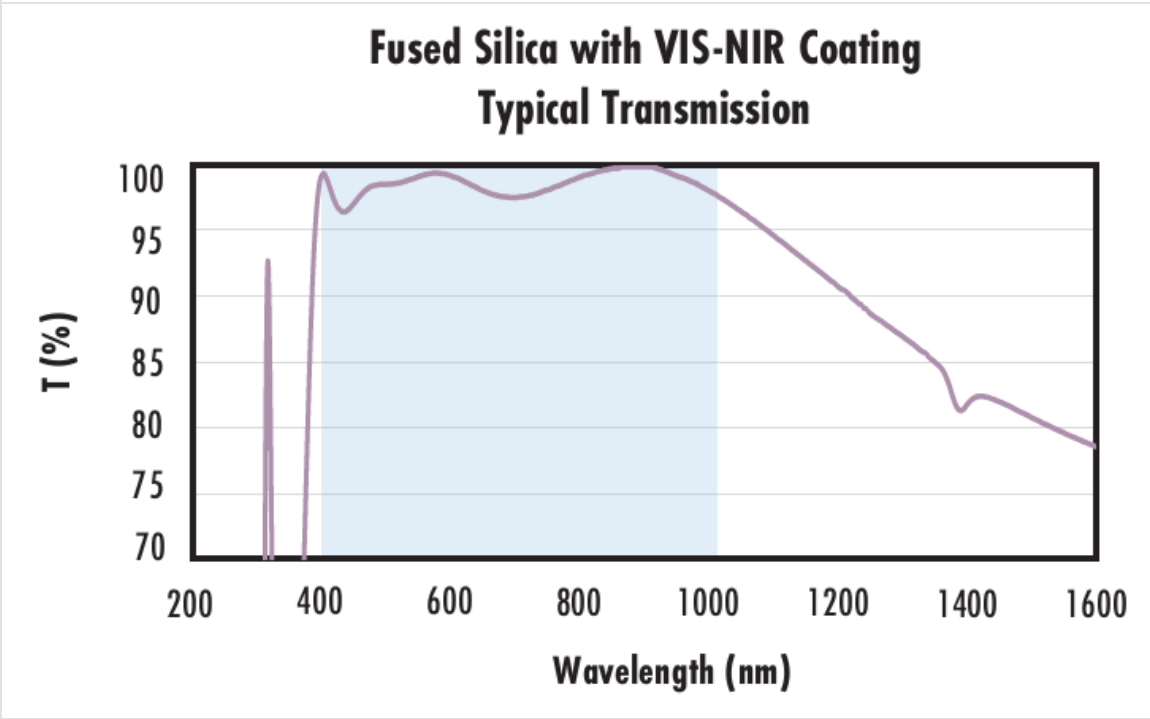
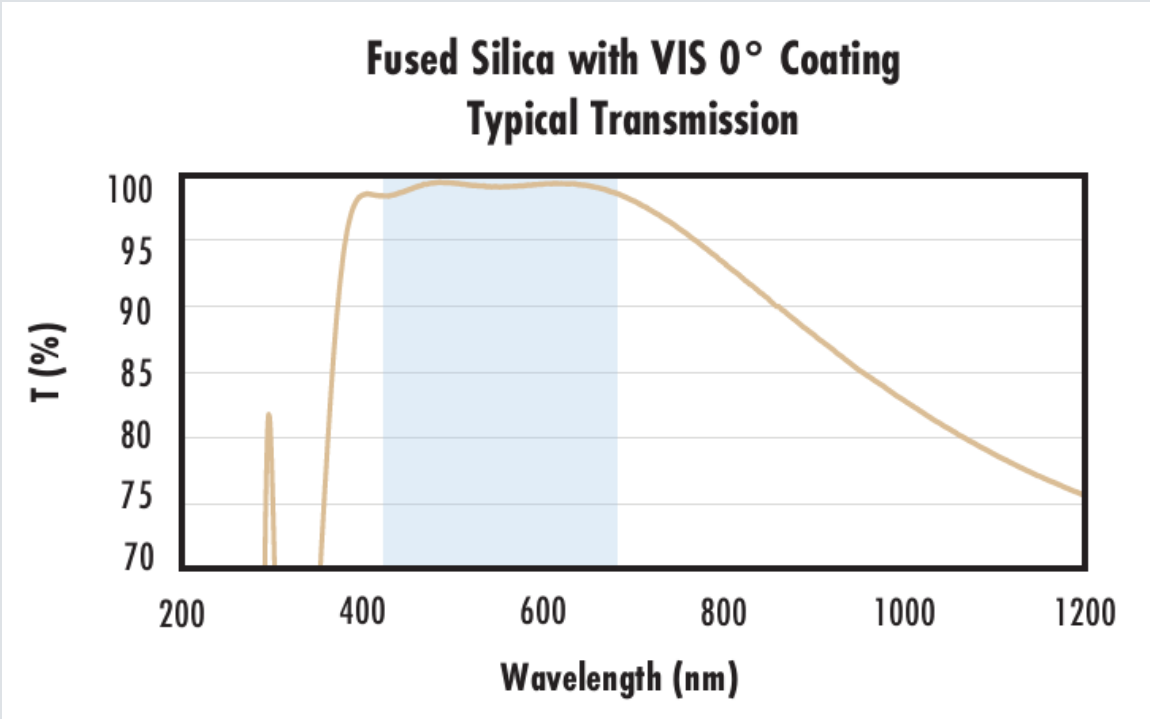
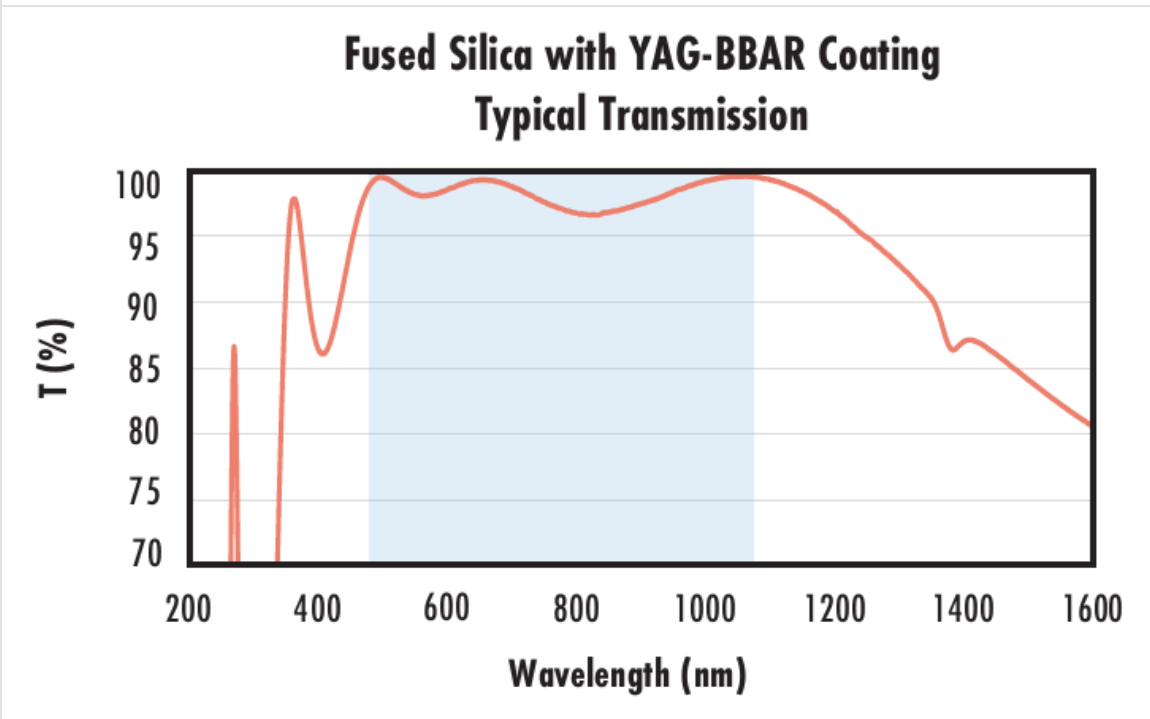
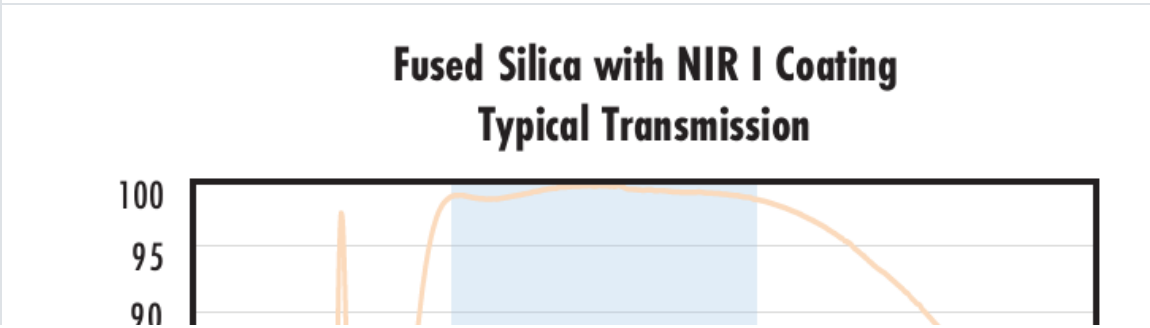
PRODUCT DETAILS

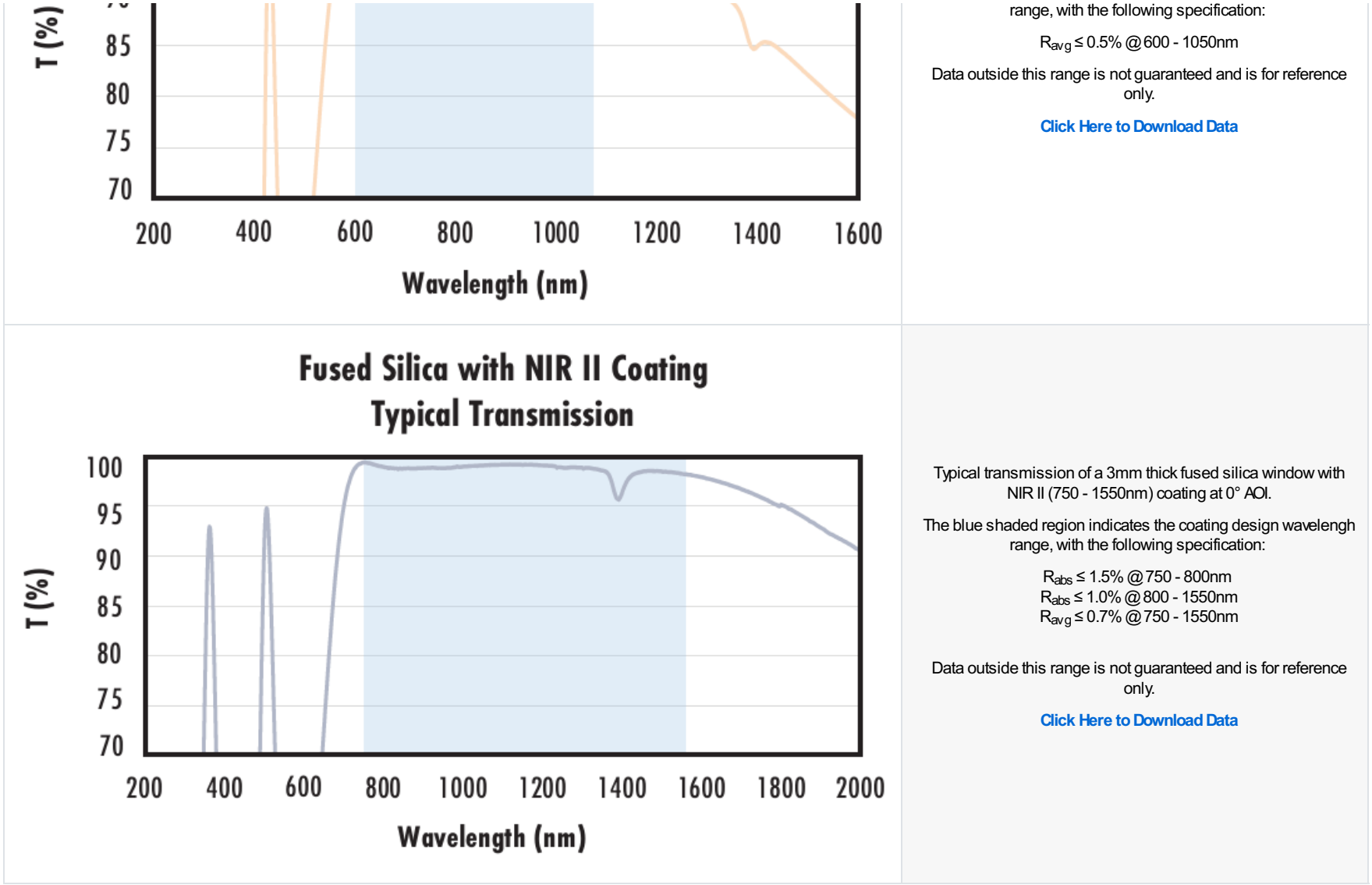
- AR Coated to Provide <0.7% Reflection per Surface for 750 - 1550nm
 - Precision Fused Silica Substrate
 - Various Coating Options: [Uncoated](#), [MgF₂](#), [UV-AR](#), [UV-VIS](#), [VIS-EXT](#), [VIS-NIR](#), [VIS 0°](#), [YAG-BBAR](#), and [NIR I](#)
- TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses NIR II Coated feature precision specifications and a [variety of coating options](#) on a broadband substrate. Fused Silica is commonly used in applications from the Ultraviolet (UV) through the Near-Infrared (NIR). Its low index of refraction, low coefficient of thermal expansion, and low inclusion content make it ideal for laser applications and harsh environmental conditions. TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses NIR II Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are NIR II coated to increase their coating performance in the 750 to 1550nm range.

TECHNICAL INFORMATION

FUSED SILICA	
Uncoated Fused Silica	

Uncoated Fused Silica Typical Transmission <table><caption>Approximate data for Uncoated Fused Silica</caption><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr><tr><td>200</td><td>93</td></tr><tr><td>400</td><td>94</td></tr><tr><td>600</td><td>94</td></tr><tr><td>800</td><td>94</td></tr><tr><td>1000</td><td>94</td></tr><tr><td>1200</td><td>94</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>94</td></tr><tr><td>1800</td><td>94</td></tr><tr><td>2000</td><td>94</td></tr><tr><td>2200</td><td>90</td></tr></table>	Wavelength (nm)	Transmission T (%)	200	93	400	94	600	94	800	94	1000	94	1200	94	1400	92	1600	94	1800	94	2000	94	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	93																								
400	94																								
600	94																								
800	94																								
1000	94																								
1200	94																								
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Fused Silica with MgF₂ Coating Typical Transmission <table><caption>Approximate data for MgF₂ Coated Fused Silica</caption><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr><tr><td>200</td><td>94</td></tr><tr><td>400</td><td>97</td></tr><tr><td>600</td><td>97</td></tr><tr><td>800</td><td>96</td></tr><tr><td>1000</td><td>96</td></tr><tr><td>1200</td><td>96</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></table>	Wavelength (nm)	Transmission T (%)	200	94	400	97	600	97	800	96	1000	96	1200	96	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: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Wavelength (nm)	Transmission T (%)																								
200	94																								
400	97																								
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Fused Silica with UV-AR Coating Typical Transmission <table><caption>Approximate data for UV-AR Coated Fused Silica</caption><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr><tr><td>200</td><td>70</td></tr><tr><td>250</td><td>99</td></tr><tr><td>300</td><td>99</td></tr><tr><td>400</td><td>100</td></tr><tr><td>500</td><td>98</td></tr><tr><td>600</td><td>88</td></tr><tr><td>800</td><td>78</td></tr><tr><td>1000</td><td>76</td></tr><tr><td>1200</td><td>77</td></tr></table>	Wavelength (nm)	Transmission T (%)	200	70	250	99	300	99	400	100	500	98	600	88	800	78	1000	76	1200	77	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				
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200	70																								
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Fused Silica with UV-VIS Coating Typical Transmission <table><caption>Approximate data for UV-VIS Coated Fused Silica</caption><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr><tr><td>200</td><td>70</td></tr><tr><td>250</td><td>97</td></tr><tr><td>400</td><td>99</td></tr><tr><td>600</td><td>100</td></tr><tr><td>800</td><td>85</td></tr><tr><td>1000</td><td>78</td></tr><tr><td>1200</td><td>77</td></tr></table>	Wavelength (nm)	Transmission T (%)	200	70	250	97	400	99	600	100	800	85	1000	78	1200	77	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: $R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$ $R_{avg} \leq 1.5\% @ 250 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data								
Wavelength (nm)	Transmission T (%)																								
200	70																								
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1000	78																								
1200	77																								
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: $R_{avg} \leq 0.5\% @ 350 - 700nm$ 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: $R_{abs} \leq 0.25\% @ 880nm$ $R_{avg} \leq 1.25\% @ 400 - 870nm$ $R_{avg} \leq 1.25\% @ 890 - 1000nm$ 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



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.

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- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

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