

TECHSPEC[®] 50mm Dia. x 150mm FL, YAG-BBAR Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock #18-193 3 In Stock

-

1

+

S\$473⁻²⁰

ADD TO CART

Volume Pricing	
Qty 1-5	S\$473.20 each
Qty 6-25	S\$378.00 each
Qty 26-49	S\$355.60 each
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SPECIFICATIONS

General

Type:

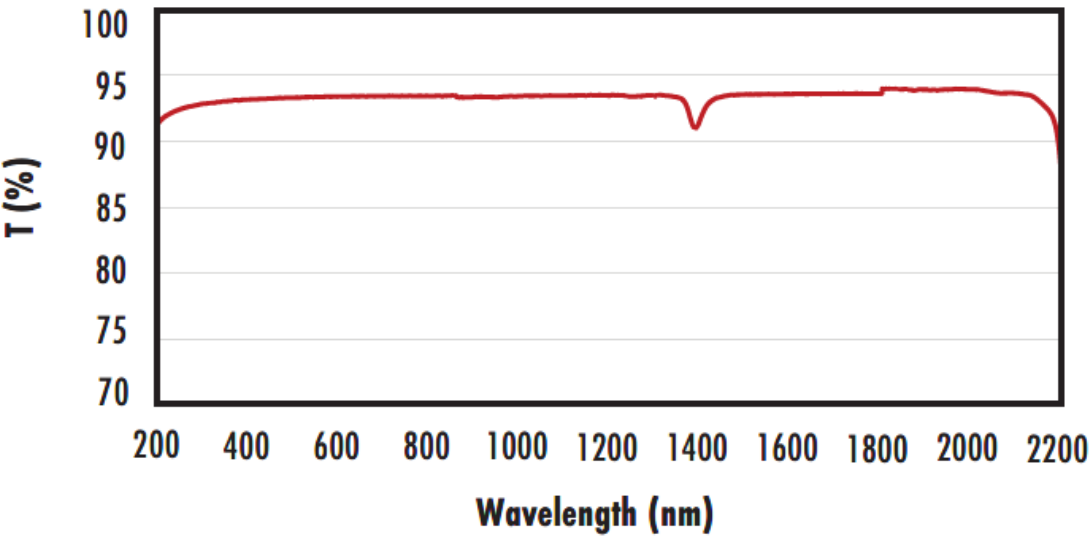
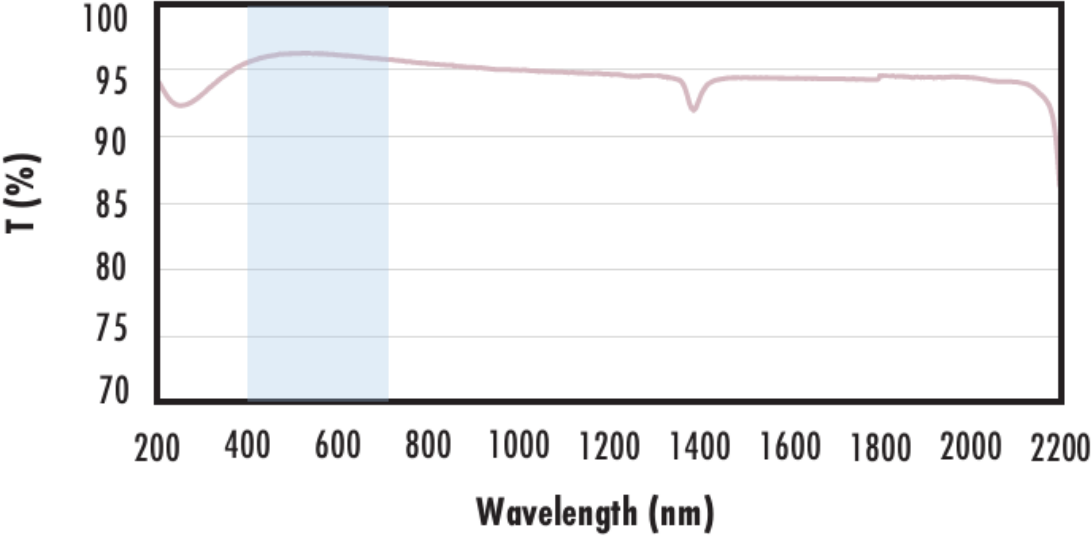
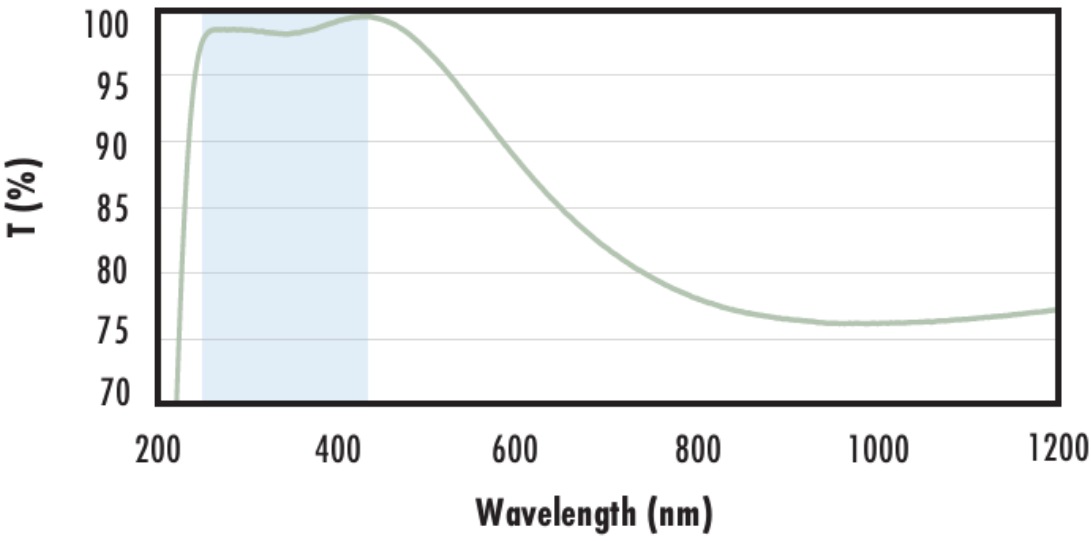
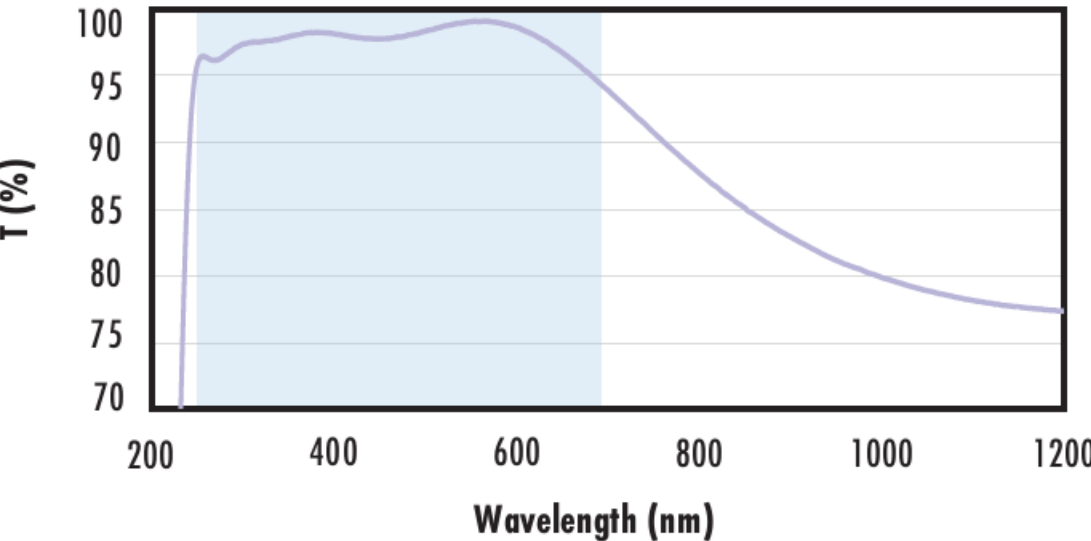
Plano-Convex Lens	
Physical & Mechanical Properties	
50.00 -0.025	Diameter (mm):
<1	Centering (arcmin):
7.00 ±0.10	Center Thickness CT (mm):
2.29	Edge Thickness ET (mm):
49	Clear Aperture CA (mm):
Protective as needed	Bevel:
Optical Properties	
150.00 @ 587.6nm	Effective Focal Length EFL (mm):
145.20	Back Focal Length BFL (mm):
YAG-BBAR (500-1100nm)	Coating:
R _{abs} <0.25% @ 532nm R _{abs} <0.25% @ 1064nm R _{avg} <1.0% @ 500 - 1100nm	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 (%):
68.77	Radius R ₁ (mm):
3	f#:
0.17	Numerical Aperture NA:
500 - 1100	Wavelength Range (nm):
5 J/cm² @ 532nm, 10ns	Damage Threshold, By Design: ☐
Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

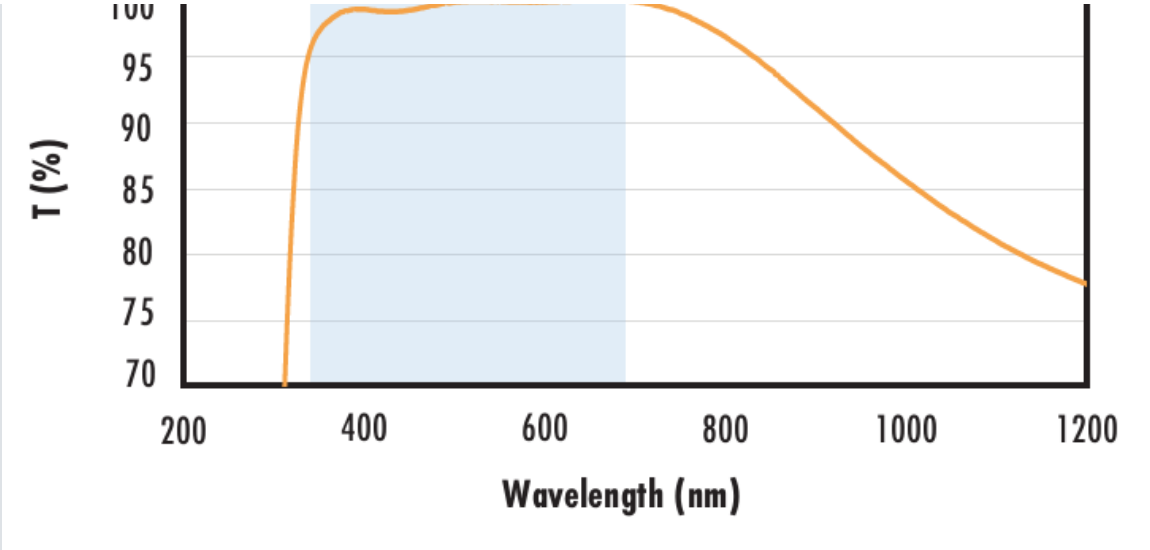
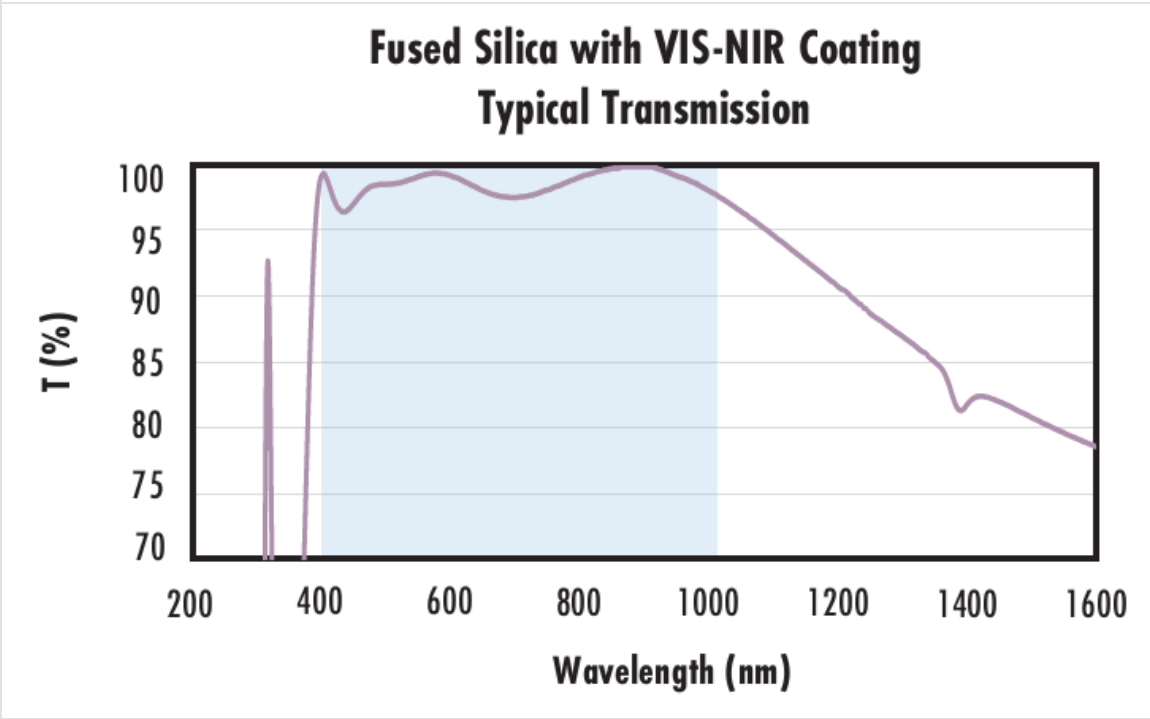
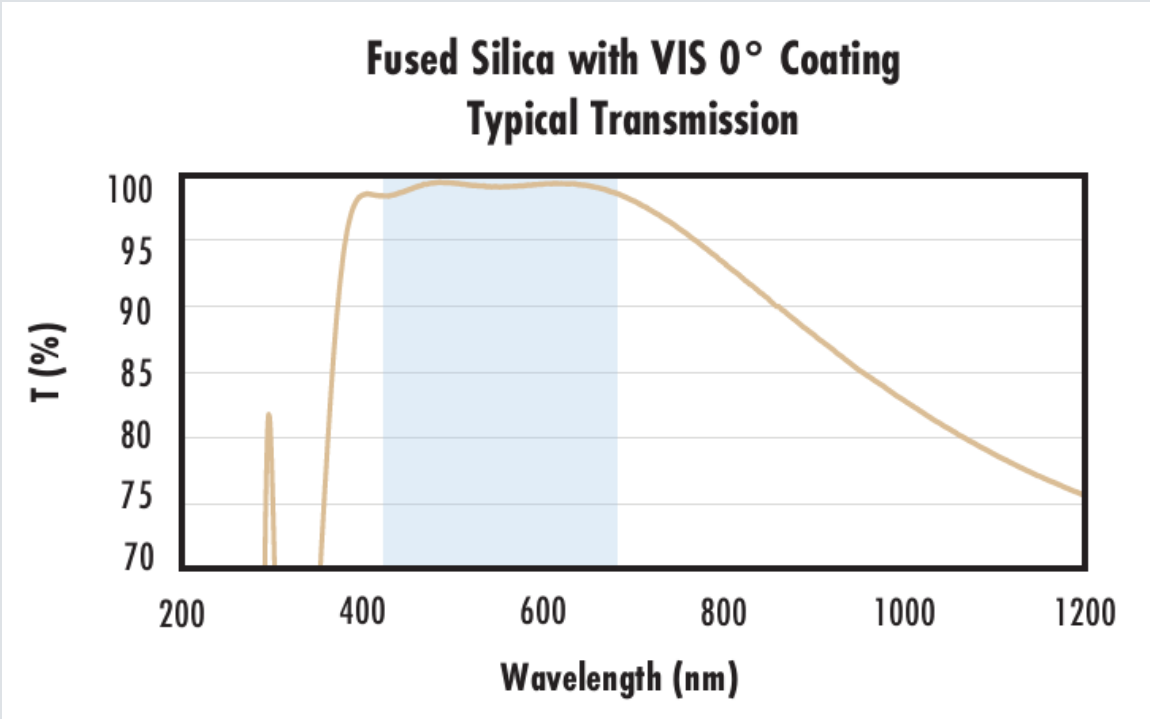
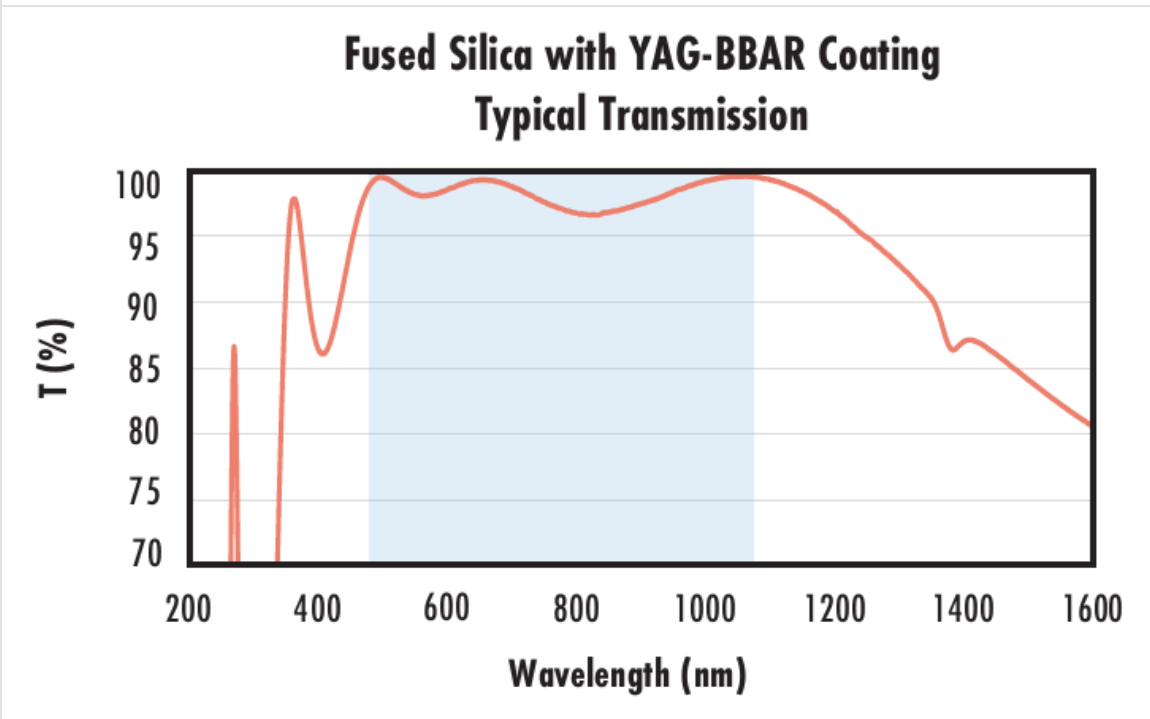
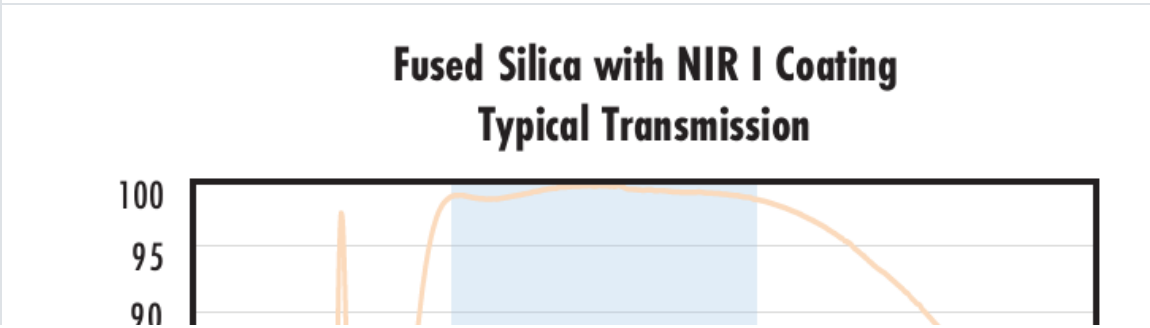
PRODUCT DETAILS

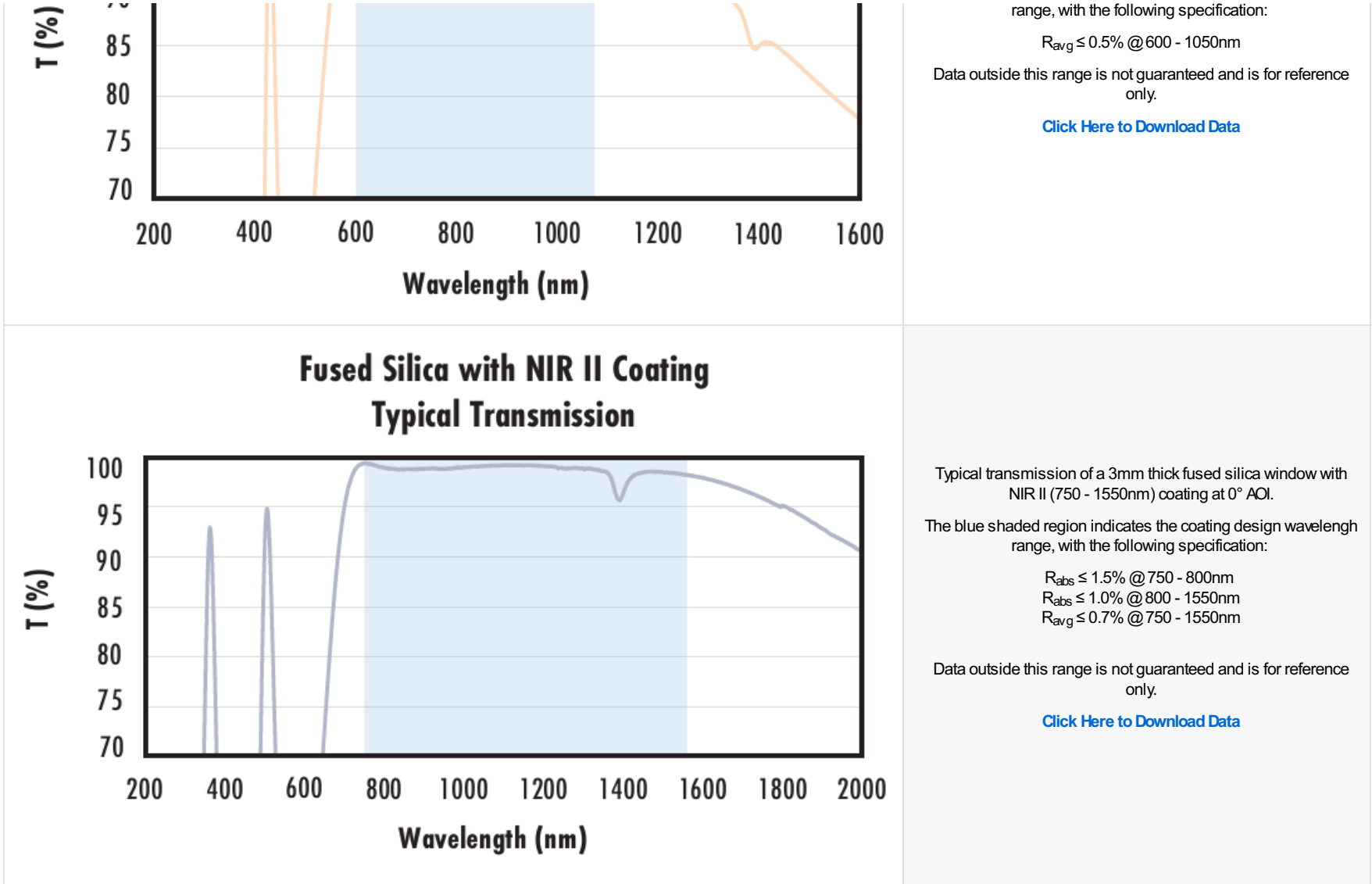
- AR Coated to Provide <1.0% Reflection per Surface for 500 - 1100nm
 - Precision Fused Silica Substrate
 - Various Coating Options: [Uncoated](#), [MgF₂](#), [UV-AR](#), [UV-VIS](#), [VIS-EXT](#), [VIS-NIR](#), [VIS 0°](#), [NIR I](#), and [NIR II](#)
- TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses YAG-BBAR 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 YAG-BBAR Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are YAG-BBAR coated and feature less than 0.25% reflection at common Nd:YAG laser wavelengths of 532nm and 1064nm.

TECHNICAL INFORMATION

FUSED SILICA	
Uncoated Fused Silica	

Uncoated Fused Silica Typical Transmission  <table border="1"><caption>Approximate data for Uncoated Fused Silica</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>92.5</td></tr><tr><td>400</td><td>93.5</td></tr><tr><td>600</td><td>94.0</td></tr><tr><td>800</td><td>94.0</td></tr><tr><td>1000</td><td>94.0</td></tr><tr><td>1200</td><td>94.0</td></tr><tr><td>1400</td><td>92.0</td></tr><tr><td>1600</td><td>94.0</td></tr><tr><td>1800</td><td>94.5</td></tr><tr><td>2000</td><td>94.5</td></tr><tr><td>2200</td><td>90.0</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	92.5	400	93.5	600	94.0	800	94.0	1000	94.0	1200	94.0	1400	92.0	1600	94.0	1800	94.5	2000	94.5	2200	90.0	Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra. Click Here to Download Data
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Fused Silica with MgF₂ Coating Typical Transmission  <table border="1"><caption>Approximate data for MgF₂ Coated Fused Silica</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>94.0</td></tr><tr><td>400</td><td>97.0</td></tr><tr><td>600</td><td>97.0</td></tr><tr><td>800</td><td>96.0</td></tr><tr><td>1000</td><td>95.5</td></tr><tr><td>1200</td><td>95.5</td></tr><tr><td>1400</td><td>93.0</td></tr><tr><td>1600</td><td>95.5</td></tr><tr><td>1800</td><td>95.5</td></tr><tr><td>2000</td><td>95.5</td></tr><tr><td>2200</td><td>90.0</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	94.0	400	97.0	600	97.0	800	96.0	1000	95.5	1200	95.5	1400	93.0	1600	95.5	1800	95.5	2000	95.5	2200	90.0	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
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Fused Silica with UV-AR Coating Typical Transmission  <table border="1"><caption>Approximate data for UV-AR Coated Fused Silica</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70.0</td></tr><tr><td>250</td><td>99.0</td></tr><tr><td>400</td><td>100.0</td></tr><tr><td>600</td><td>90.0</td></tr><tr><td>800</td><td>78.0</td></tr><tr><td>1000</td><td>75.5</td></tr><tr><td>1200</td><td>76.5</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70.0	250	99.0	400	100.0	600	90.0	800	78.0	1000	75.5	1200	76.5	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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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: $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$ 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: $R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$ 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: $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$ 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: $R_{abs} \leq 0.25\% @ 532\text{nm}$ $R_{abs} \leq 0.25\% @ 1064\text{nm}$ $R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$ 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



CUSTOM

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- High-precision surface quality and flatness
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