

TECHSPEC[®] 25mm Diameter x -50 FL, VIS-NIR Coated, Plano-Concave Lens



TECHSPEC VIS-NIR Coated Plano-Concave (PCV) Lenses



Stock **#45-923** 20+ In Stock

[Other Coating Options](#)

-

1

+

S\$79¹⁰

ADD TO CART

Volume Pricing	
Qty 1-9	S\$79.10 each
Qty 10-25	S\$70.70 each
Qty 26-49	S\$63.35 each
Need More?	Request Quote

Product Downloads

General

Type:

Plano-Concave Lens

Physical & Mechanical Properties

Diameter (mm):

25.00 +0.0/-0.025	
Protective as needed	Bevel:
3.50	Center Thickness CT (mm):
±0.10	Center Thickness Tolerance (mm):
<1	Centering (arcmin):
24.00	Clear Aperture CA (mm):
6.33	Edge Thickness ET (mm):
Optical Properties	
-50.00	Effective Focal Length EFL (mm):
N-BK7	Substrate: ☐
2.00	f#:
0.25	Numerical Aperture NA:
VIS-NIR (400-1000nm)	Coating:
400 - 1000	Wavelength Range (nm):
-52.31	Back Focal Length BFL (mm):
R _{abs} ≤0.25% @ 880nm R _{avg} ≤1.25% @ 400 - 870nm R _{avg} ≤1.25% @ 890 - 1000nm	Coating Specification:
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
-25.84	Radius R ₁ (mm):
40-20	Surface Quality:
5 J/cm² @ 532nm, 10ns	Damage Threshold, By Design: ☐
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:

Regulatory Compliance	
Compliant	RoHS 2015:
Compliant	Reach 219:
View	Certificate of Conformance:

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](#).

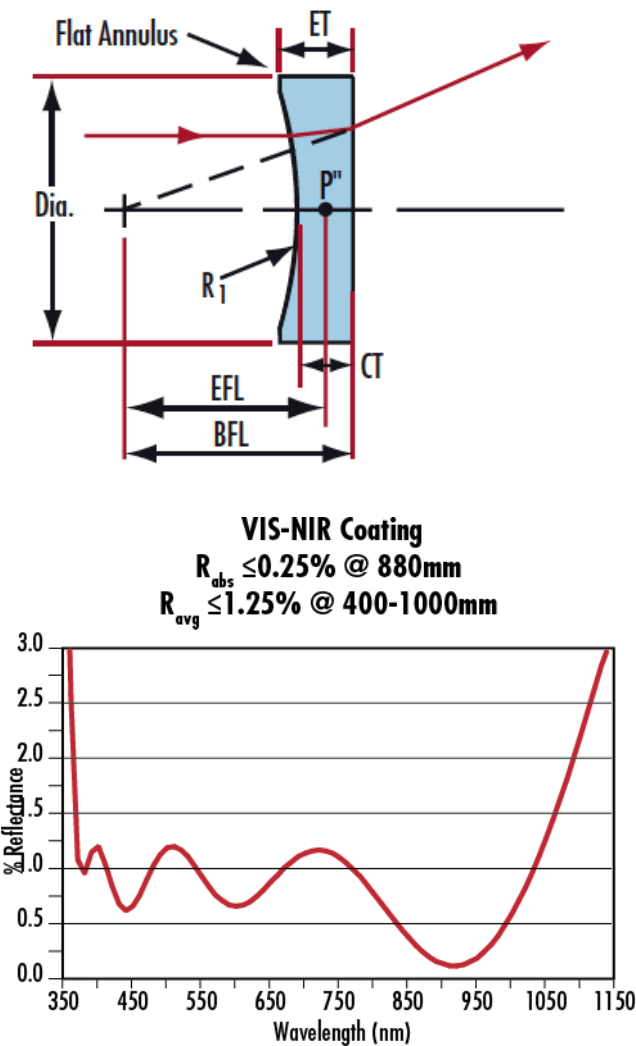
Product Details

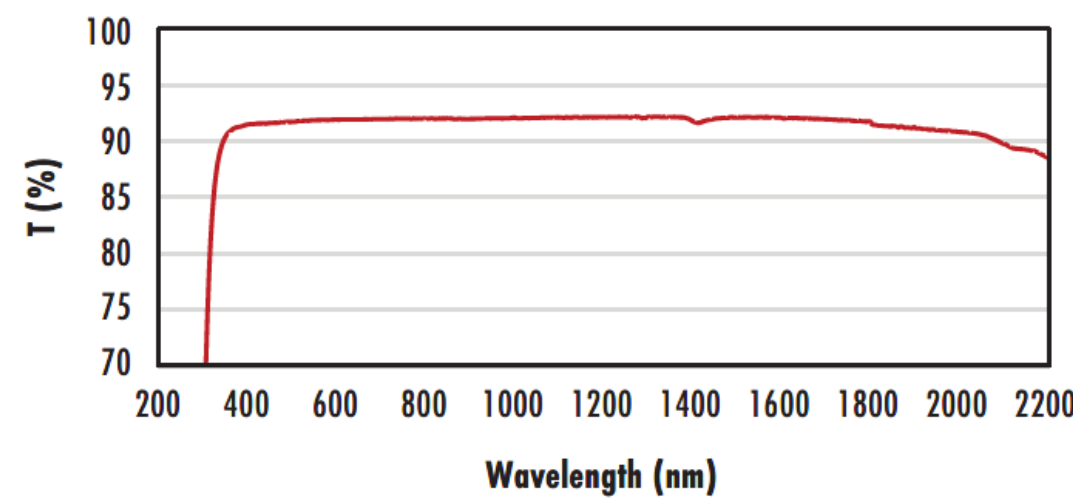
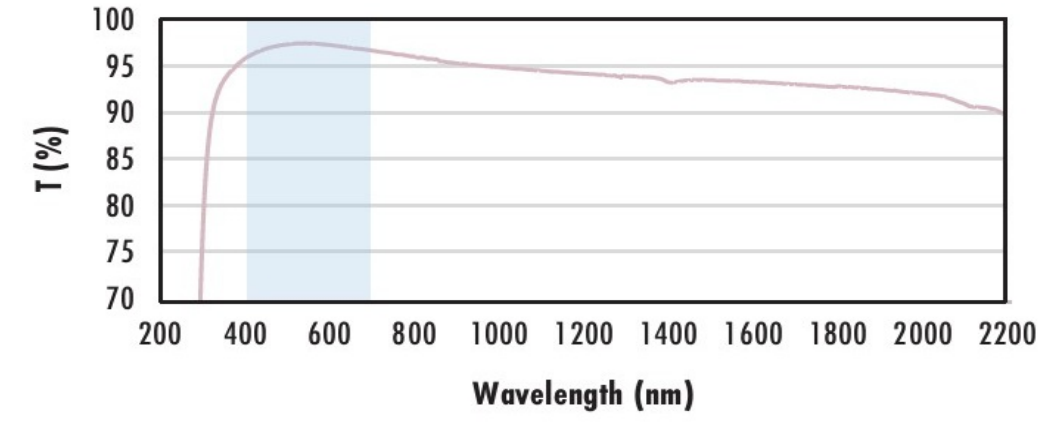
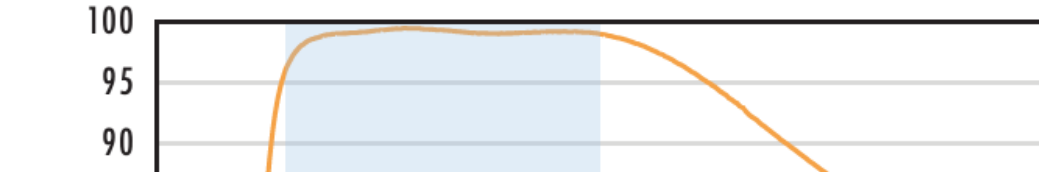
- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
- <0.25% Reflectance @ 880nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

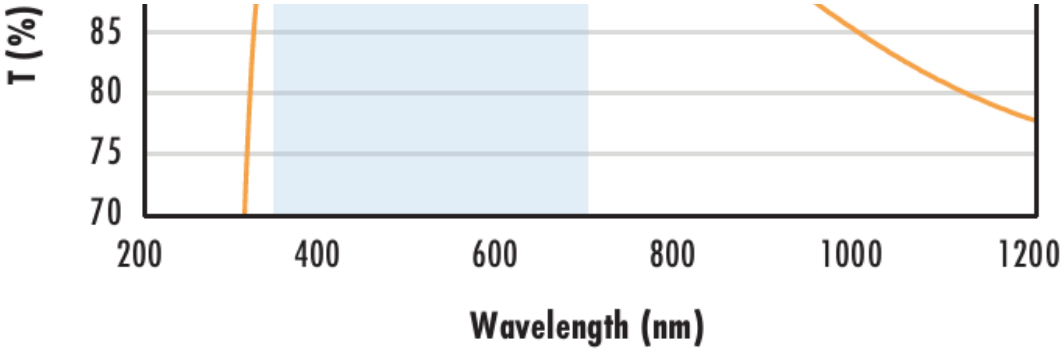
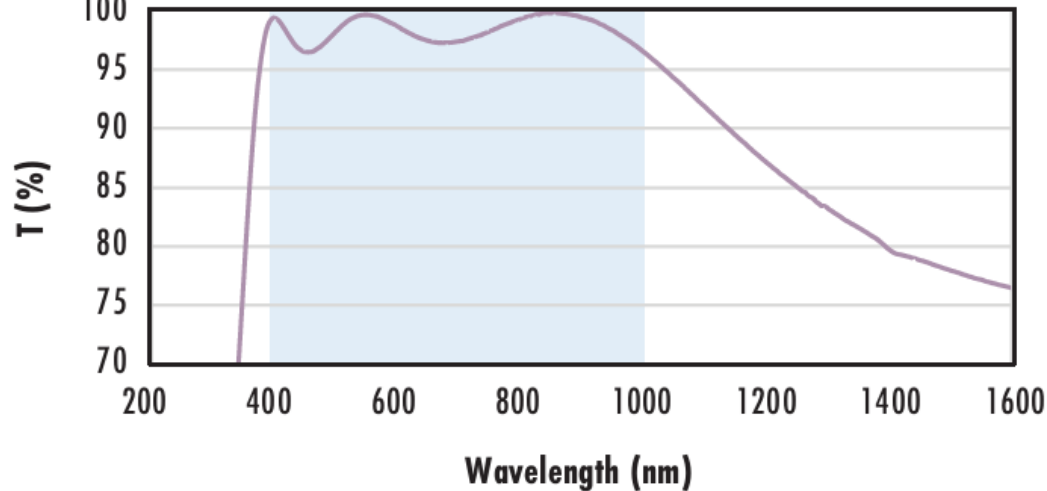
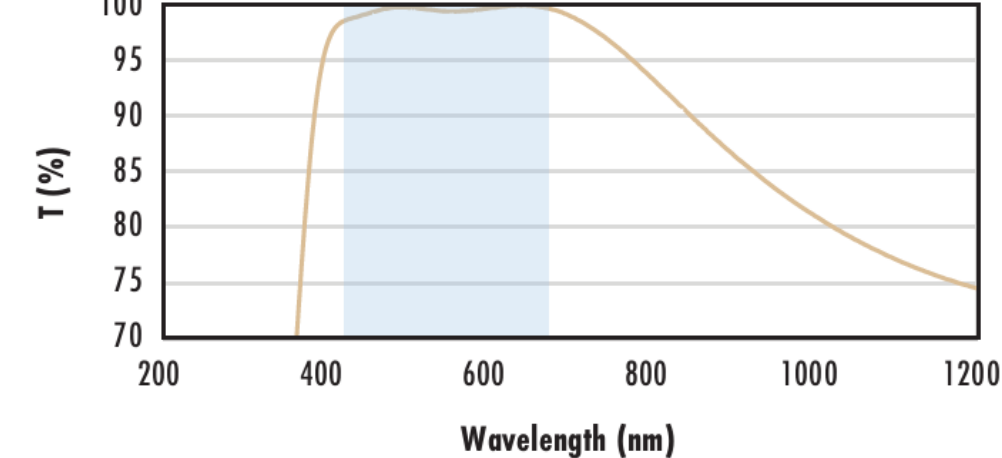
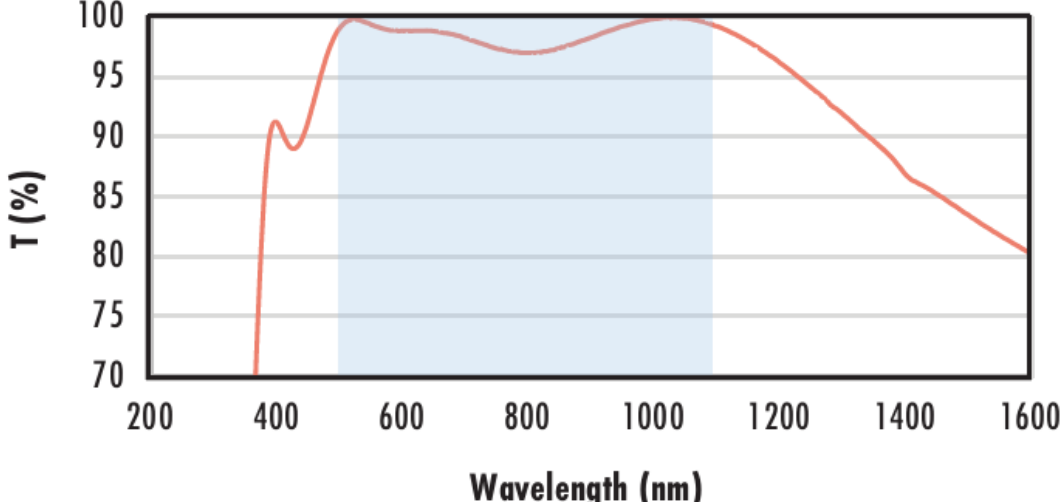
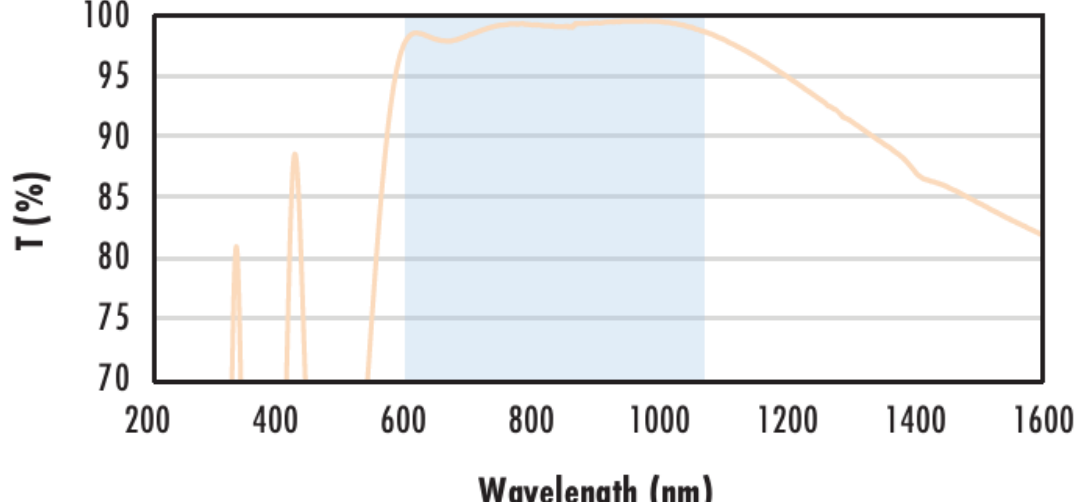
TECHSPEC® VIS-NIR Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be

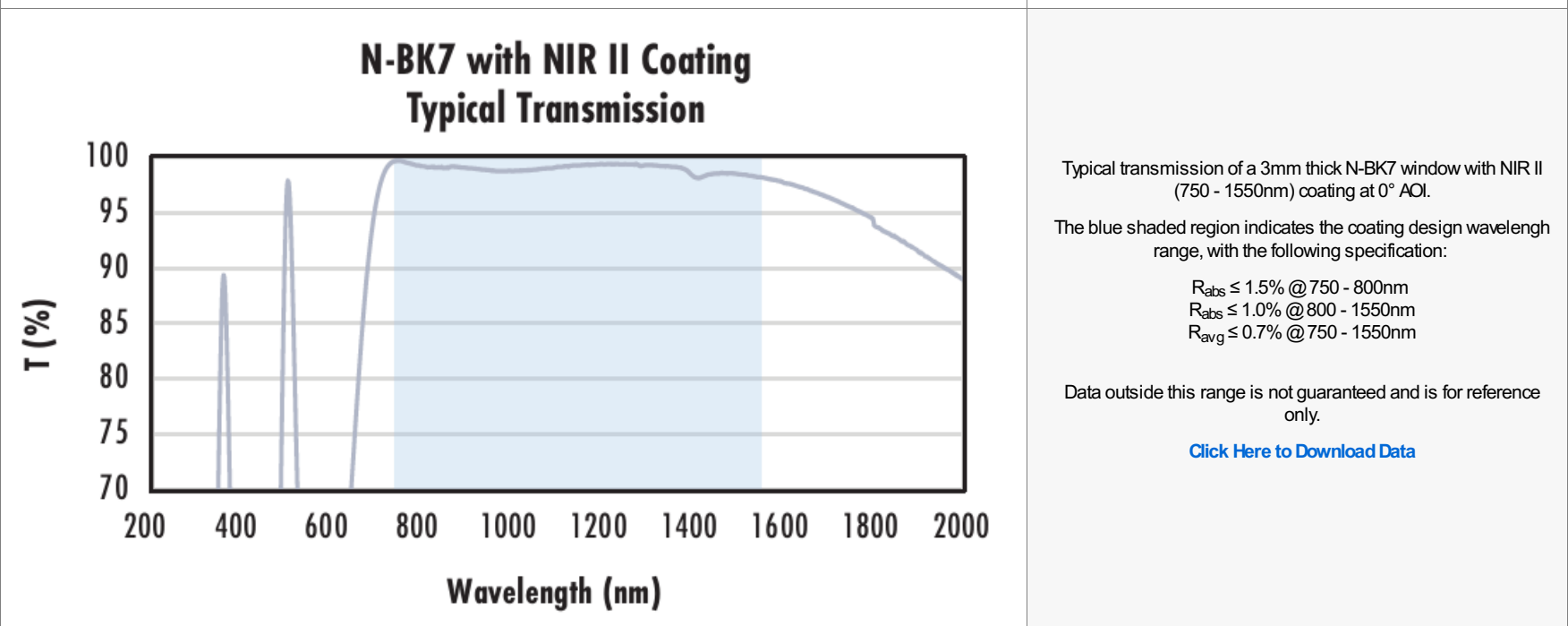
used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® VIS-NIR Coated Plano-Concave (PCV) Lenses are optimized for transmission (>99%) in the near-infrared. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

Technical Information



N-BK7																											
Uncoated N-BK7 Typical Transmission  <table border="1"><caption>Approximate data for Uncoated N-BK7 Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>90</td></tr><tr><td>400</td><td>92</td></tr><tr><td>600</td><td>92.5</td></tr><tr><td>800</td><td>92.5</td></tr><tr><td>1000</td><td>92.5</td></tr><tr><td>1200</td><td>92.5</td></tr><tr><td>1400</td><td>92.5</td></tr><tr><td>1600</td><td>92.5</td></tr><tr><td>1800</td><td>92.5</td></tr><tr><td>2000</td><td>92.5</td></tr><tr><td>2200</td><td>92.5</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	90	400	92	600	92.5	800	92.5	1000	92.5	1200	92.5	1400	92.5	1600	92.5	1800	92.5	2000	92.5	2200	92.5	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data		
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200	90																										
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N-BK7 with MgF₂ Coating Typical Transmission  <table border="1"><caption>Approximate data for N-BK7 with MgF₂ Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>90</td></tr><tr><td>400</td><td>95</td></tr><tr><td>600</td><td>97</td></tr><tr><td>800</td><td>96</td></tr><tr><td>1000</td><td>95</td></tr><tr><td>1200</td><td>94.5</td></tr><tr><td>1400</td><td>94</td></tr><tr><td>1600</td><td>93.5</td></tr><tr><td>1800</td><td>93</td></tr><tr><td>2000</td><td>92</td></tr><tr><td>2200</td><td>90</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	90	400	95	600	97	800	96	1000	95	1200	94.5	1400	94	1600	93.5	1800	93	2000	92	2200	90	Typical transmission of a 3mm thick N-BK7 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. Click Here to Download Data		
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200	90																										
400	95																										
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N-BK7 with VIS-EXT Coating Typical Transmission  <table border="1"><caption>Approximate data for N-BK7 with VIS-EXT Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>90</td></tr><tr><td>350</td><td>95</td></tr><tr><td>400</td><td>98</td></tr><tr><td>600</td><td>99</td></tr><tr><td>800</td><td>98</td></tr><tr><td>1000</td><td>97</td></tr><tr><td>1200</td><td>95</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>88</td></tr><tr><td>1800</td><td>82</td></tr><tr><td>2000</td><td>75</td></tr><tr><td>2200</td><td>65</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	90	350	95	400	98	600	99	800	98	1000	97	1200	95	1400	92	1600	88	1800	82	2000	75	2200	65	Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification:
Wavelength (nm)	Transmission T (%)																										
200	90																										
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	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
N-BK7 with VIS-NIR Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 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
N-BK7 with VIS 0° Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 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
N-BK7 with YAG-BBAR Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 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
N-BK7 with NIR I Coating Typical Transmission 	Typical transmission of a 3mm thick N-BK7 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



Coating Curves

Compatible Mounts