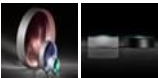


TECHSPEC[®] 6mm Diameter x -9 FL, VIS-NIR Coated, Plano-Concave Lens



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



Stock **#48-345** 20+ In Stock

[Other Coating Options](#)

-

1

+

C\$66⁵⁰

ADD TO CART

Volume Pricing	
Qty 1-9	C\$66.50 each
Qty 10-25	C\$59.50 each
Qty 26-49	C\$53.20 each
Need More?	Request Quote

Product Downloads

General

Plano-Concave Lens

Type:

Physical & Mechanical Properties

Diameter (mm):

6.00 +0.0/-0.025	
Protective as needed	Bevel:
Center Thickness CT (mm):	
1.50	
Center Thickness Tolerance (mm):	
±0.05	
Centering (arcmin):	
<3	
Clear Aperture CA (mm):	
5.4	
Edge Thickness ET (mm):	
2.04	
Optical Properties	
Effective Focal Length EFL (mm):	
-9.00	
N-SF11	Substrate: ☐
f##:	
1.5	
Numerical Aperture NA:	
0.33	
Coating:	
VIS-NIR (400-1000nm)	
Wavelength Range (nm):	
400 - 1000	
Back Focal Length BFL (mm):	
-9.84	
Coating Specification:	
R _{abs} ≤0.25% @ 880nm	
R _{avg} ≤1.25% @ 400 - 870nm	
R _{avg} ≤1.25% @ 890 - 1000nm	
Focal Length Specification Wavelength (nm):	
587.6	
Focal Length Tolerance (%):	
±1	
Radius R ₁ (mm):	
-7.06	
Surface Quality:	
40-20	
Damage Threshold, By Design: ☐	
5 J/cm ² @ 532nm, 10ns	
Power (P-V) @ 632.8nm:	
1.5λ	
Irregularity (P-V) @ 632.8nm:	
λ/4	

Regulatory Compliance	
RoHS 2015:	
Compliant	
Certificate of Conformance:	
View	
Reach 235:	
Compliant	

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](#).

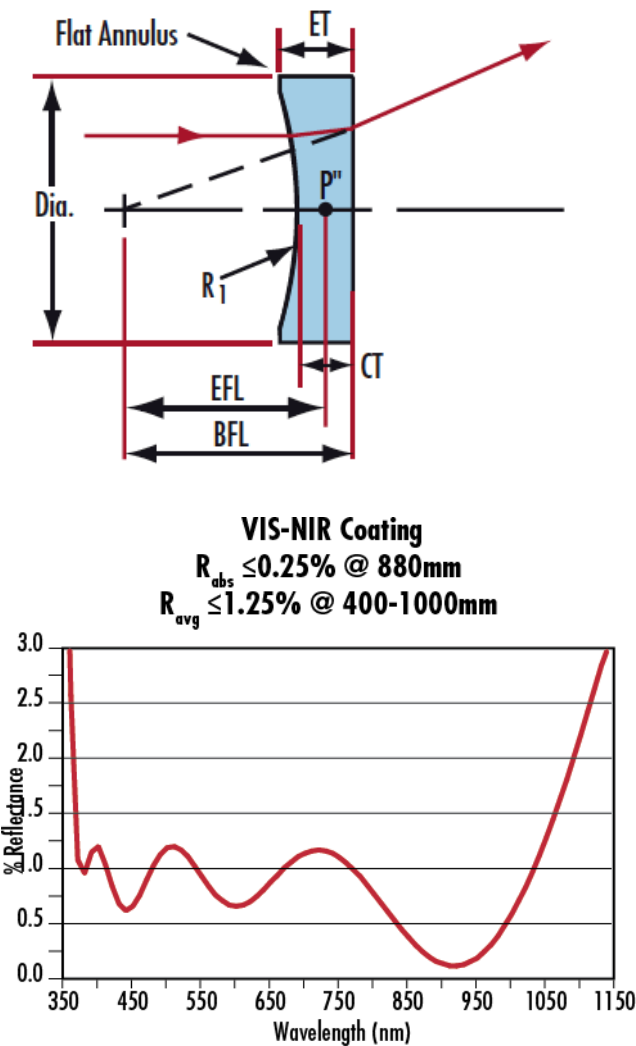
Product Details

- 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](#)

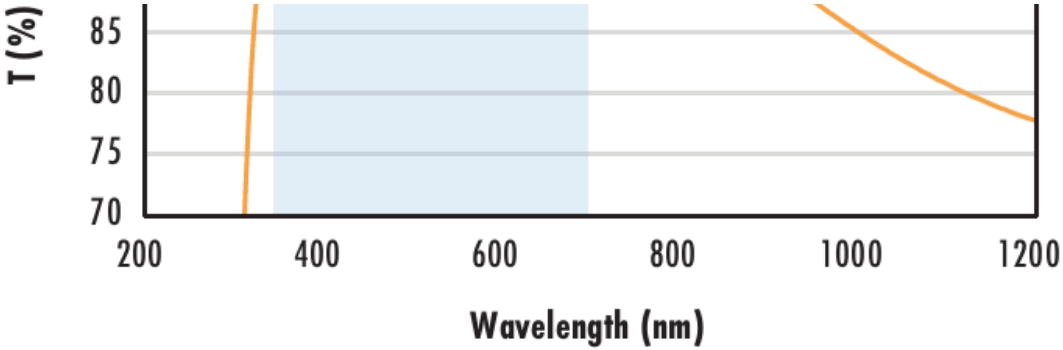
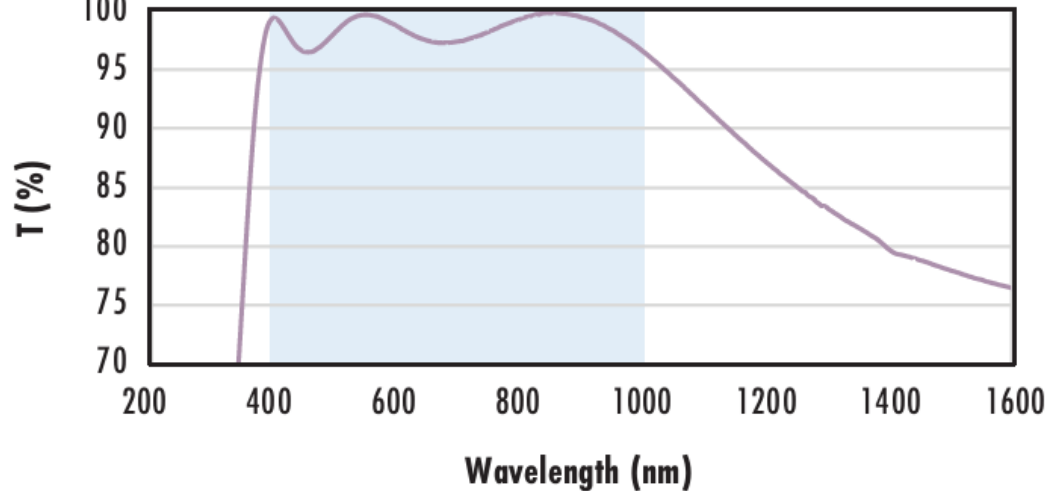
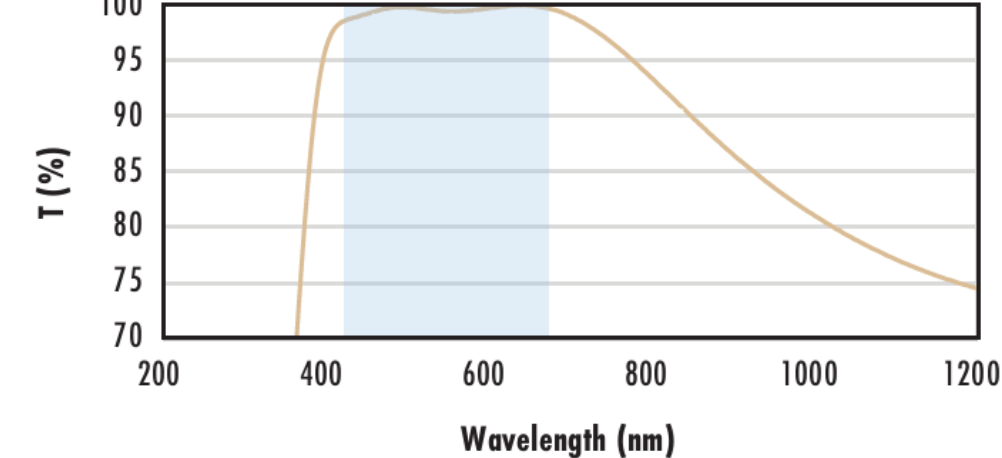
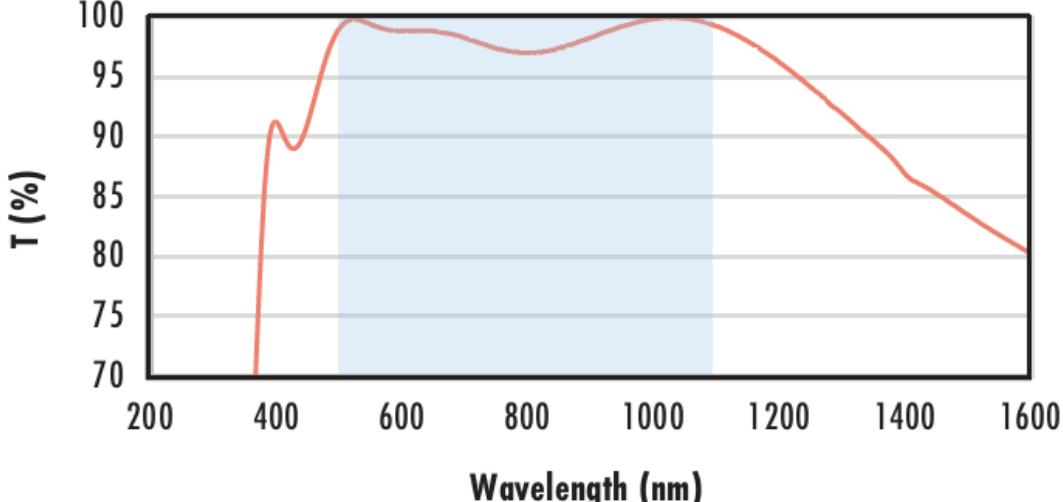
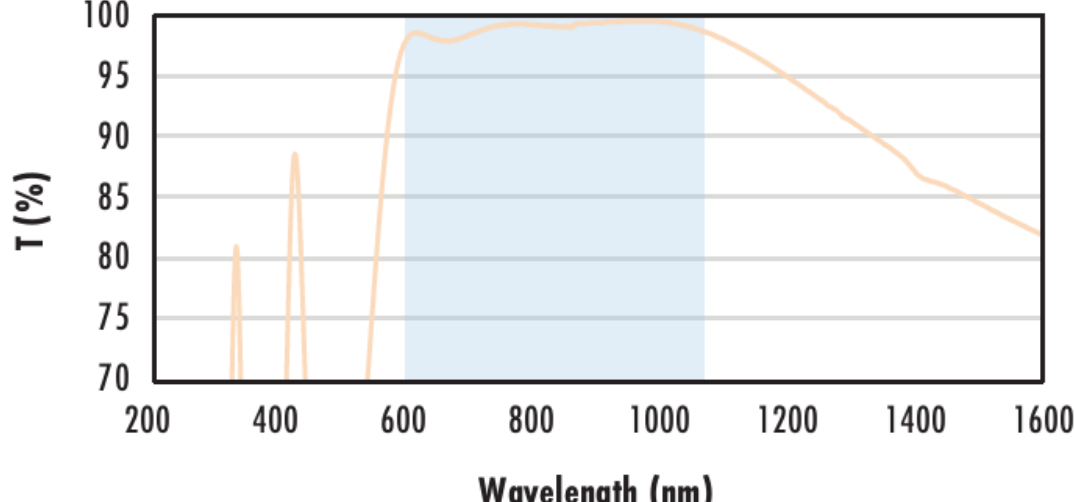
TECHSPEC® VIS-NIR Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be

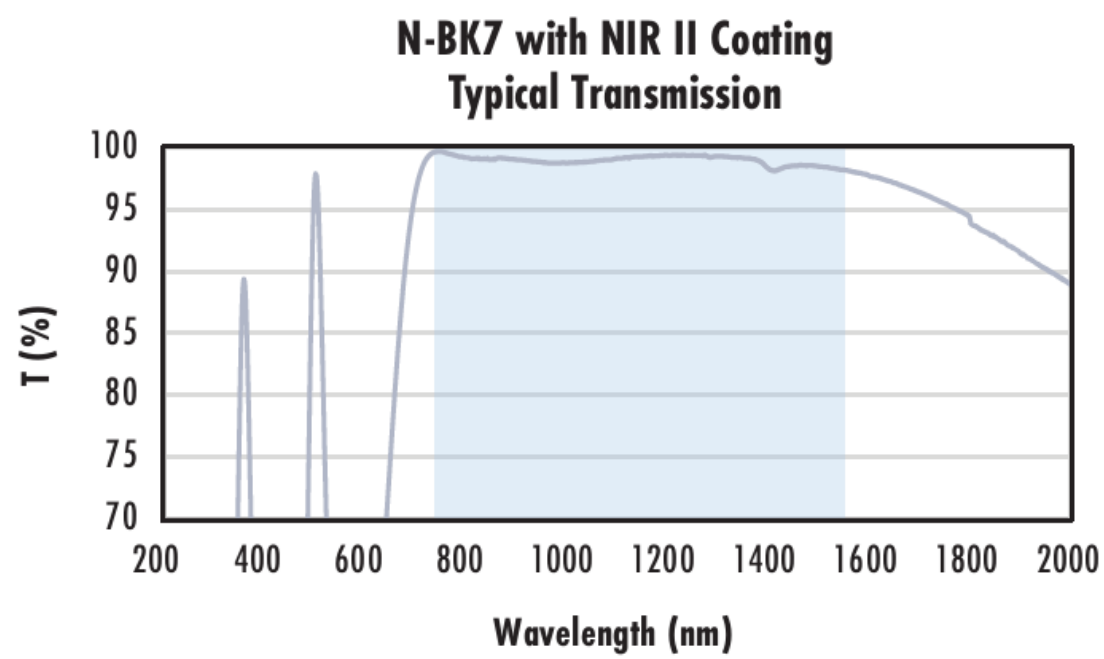
used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® VIS-NIR Coated Plano-Concave (PCV) Lenses are 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</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>300</td><td>70</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</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>91.5</td></tr><tr><td>2200</td><td>89</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	300	70	400	92	600	92.5	800	92.5	1000	92.5	1200	92.5	1400	92	1600	92.5	1800	92.5	2000	91.5	2200	89	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data		
Wavelength (nm)	Transmission T (%)																										
300	70																										
400	92																										
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N-BK7 with MgF₂ Coating Typical Transmission <table border="1"><caption>Approximate data for N-BK7 with MgF2 Coating</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>300</td><td>70</td></tr><tr><td>400</td><td>95</td></tr><tr><td>500</td><td>98</td></tr><tr><td>600</td><td>97.5</td></tr><tr><td>800</td><td>96.5</td></tr><tr><td>1000</td><td>95.5</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 (%)	300	70	400	95	500	98	600	97.5	800	96.5	1000	95.5	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
Wavelength (nm)	Transmission T (%)																										
300	70																										
400	95																										
500	98																										
600	97.5																										
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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</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>300</td><td>90</td></tr><tr><td>400</td><td>99</td></tr><tr><td>500</td><td>99.5</td></tr><tr><td>600</td><td>99.5</td></tr><tr><td>800</td><td>99</td></tr><tr><td>1000</td><td>98.5</td></tr><tr><td>1200</td><td>97</td></tr><tr><td>1400</td><td>95</td></tr><tr><td>1600</td><td>92</td></tr><tr><td>1800</td><td>88</td></tr><tr><td>2000</td><td>84</td></tr><tr><td>2200</td><td>80</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	300	90	400	99	500	99.5	600	99.5	800	99	1000	98.5	1200	97	1400	95	1600	92	1800	88	2000	84	2200	80	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 (%)																										
300	90																										
400	99																										
500	99.5																										
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1200	97																										
1400	95																										
1600	92																										
1800	88																										
2000	84																										
2200	80																										

	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
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: $R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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: $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$ 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: $R_{abs} \leq 0.25\% @ 532\text{nm}$ $R_{abs} \leq 0.25\% @ 1064\text{nm}$ $R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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: $R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data



Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

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

$R_{\text{abs}} \leq 1.5\% @ 750 - 800\text{nm}$
 $R_{\text{abs}} \leq 1.0\% @ 800 - 1550\text{nm}$
 $R_{\text{avg}} \leq 0.7\% @ 750 - 1550\text{nm}$

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

[Click Here to Download Data](#)

Coating Curves

Compatible Mounts