

TECHSPEC[®] 6.0mm Diameter x -18 FL, NIR I, Inked, Plano-Concave Lens



Stock **#49-520-INK** [CONTACT US](#)

[Other Coating Options](#)

-

1

+

€55^{.50}

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Volume Pricing	
Qty 1-9	€55,50 each
Qty 10-25	€49,75 each
Qty 26-49	€44,50 each
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Plano-Concave Lens

Type:

Physical & Mechanical Properties

6.00 ±0.025	Diameter (mm):
Protective as needed	Bevel:
2.00	Center Thickness CT (mm):
±0.05	Center Thickness Tolerance (mm):
<1	Centering (arcmin):
5.4	Clear Aperture CA (mm):
2.40	Edge Thickness ET (mm):
Optical Properties	
-18.00	Effective Focal Length EFL (mm):
N-BK7	Substrate: ☐
3.00	f/#:
0.17	Numerical Aperture NA:
NIR I (600-1050nm)	Coating:
600 - 1050	Wavelength Range (nm):
-19.32	Back Focal Length BFL (mm):
R _{avg} ≤0.5% @ 600 - 1050nm	Coating Specification:
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
-9.30	Radius R ₁ (mm):
40-20	Surface Quality:
7 J/cm ² @ 1064nm, 10ns	Damage Threshold, By Design: ☐
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
Regulatory Compliance	
View	Certificate of Conformance:

Product Details

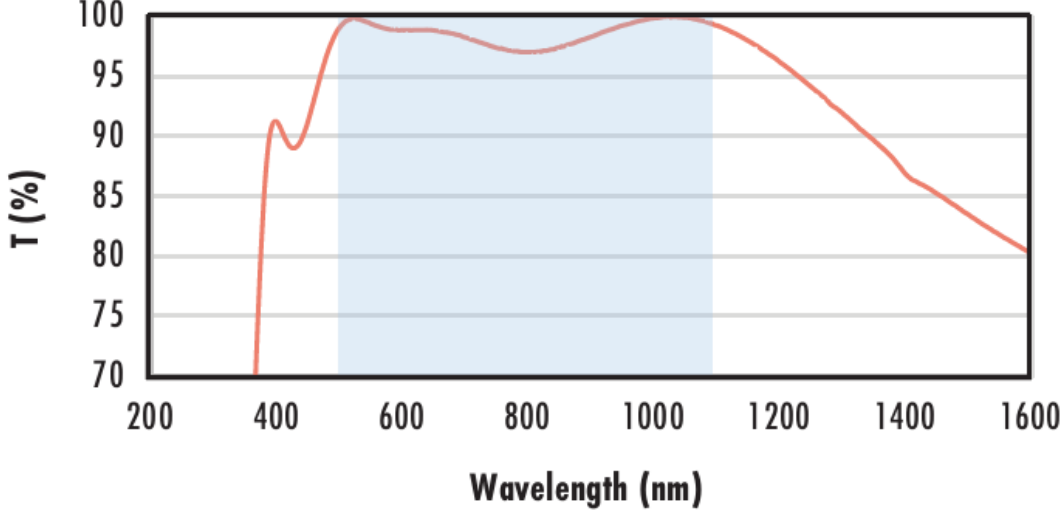
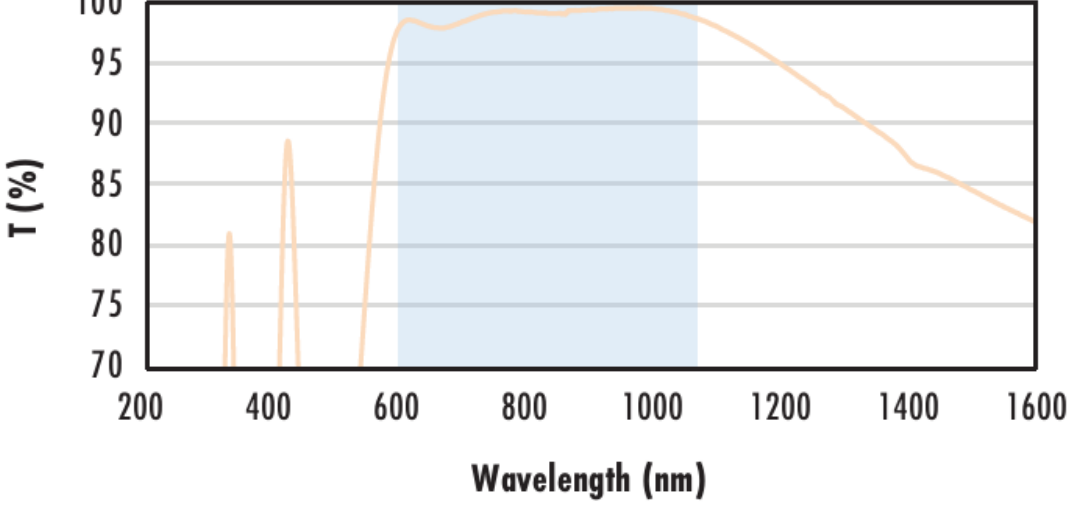
- AR Coated to Provide <0.5% Reflectance per Surface for 600 - 1050nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), and [NIR II](#)

TECHSPEC® NIR I 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® NIR I Coated Plano-Concave (PCV) Lenses offer optimal performance in the 600nm to 1050nm range. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), 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>70</td></tr><tr><td>400</td><td>92</td></tr><tr><td>600</td><td>93</td></tr><tr><td>800</td><td>93</td></tr><tr><td>1000</td><td>93</td></tr><tr><td>1200</td><td>93</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>93</td></tr><tr><td>1800</td><td>92</td></tr><tr><td>2000</td><td>91</td></tr><tr><td>2200</td><td>88</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	400	92	600	93	800	93	1000	93	1200	93	1400	92	1600	93	1800	92	2000	91	2200	88	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data
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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 Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>400</td><td>95</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>95</td></tr><tr><td>1000</td><td>94</td></tr><tr><td>1200</td><td>94</td></tr><tr><td>1400</td><td>93</td></tr><tr><td>1600</td><td>94</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	70	400	95	600	98	800	95	1000	94	1200	94	1400	93	1600	94	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: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7) Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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N-BK7 with VIS-NIR Coating Typical Transmission <table border="1"><caption>Approximate data for N-BK7 with VIS-NIR Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>75</td></tr><tr><td>400</td><td>98</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>98</td></tr><tr><td>1000</td><td>95</td></tr><tr><td>1200</td><td>75</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	75	400	98	600	98	800	98	1000	95	1200	75	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										
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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 - 675nm 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: $R_{abs} \leq 0.25\%$ @ 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
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 - 1050nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with NIR II Coating Typical Transmission 	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: $R_{abs} \leq 1.5\%$ @ 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

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Compatible Mounts