

[See all 239 Products in Family](#)

TECHSPEC[®] 50.8mm Dia. x 50.8mm FL, MgF2 Coated, Plano-Convex Lens



Stock **#71-335** **4 In Stock**

☐ [Other Coating Options](#)

-

1

+

C\$93^{.10}

ADD TO CART

Volume Pricing	
Qty 1-10	C\$93.10 each
Qty 11-24	C\$84.00 each
Qty 25-49	C\$74.20 each
Need More?	Request Quote

Product Downloads

General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

50.80 +0.0/-0.025

<1	Centering (arcmin):
12.00 ±0.10	Center Thickness CT (mm):
2.86	Edge Thickness ET (mm):
49.30	Clear Aperture CA (mm):
Protective as needed	Bevel:

Optical Properties

50.81 @ 587.6nm	Effective Focal Length EFL (mm):
44.08	Back Focal Length BFL (mm):
MgF ₂ (400-700nm)	Coating:
R _{avg} ≤1.75% @ 400 - 700nm	Coating Specification:
N-SF11	Substrate: ☐
40-20	Surface Quality:
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
±1	Focal Length Tolerance (%):
39.87	Radius R ₁ (mm):
1.00	f/#:
0.50	Numerical Aperture NA:
400 - 700	Wavelength Range (nm):
10 J/cm ² @ 532nm, 10ns	Damage Threshold, By Design: ☐

Regulatory Compliance

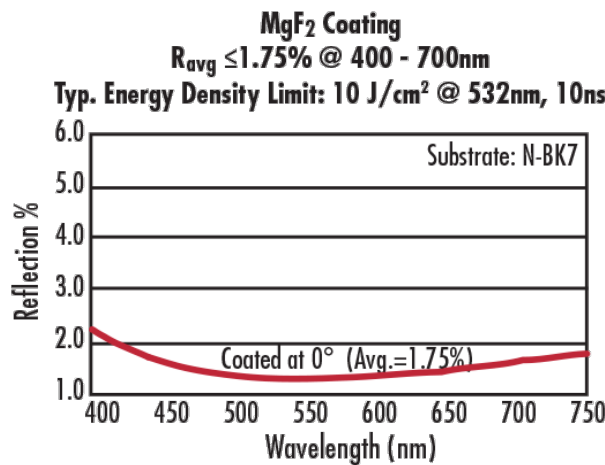
View	Certificate of Conformance:
------	-----------------------------

Product Details

- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)
- Also Available [Pre-Mounted in Engraved C-Mount Housings](#)

TECHSPEC® MgF2 Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® MgF2 Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered [uncoated](#) or with broadband anti-reflective (BBAR) coatings, which include [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#).

Technical Information





N-BK7																													
Uncoated N-BK7 Typical Transmission <table border="1"><caption>Uncoated N-BK7 Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>400</td><td>92</td></tr><tr><td>600</td><td>92</td></tr><tr><td>800</td><td>92</td></tr><tr><td>1000</td><td>92</td></tr><tr><td>1200</td><td>92</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>92</td></tr><tr><td>1800</td><td>92</td></tr><tr><td>2000</td><td>91</td></tr><tr><td>2200</td><td>89</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	400	92	600	92	800	92	1000	92	1200	92	1400	92	1600	92	1800	92	2000	91	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 (%)																												
200	70																												
300	85																												
400	92																												
600	92																												
800	92																												
1000	92																												
1200	92																												
1400	92																												
1600	92																												
1800	92																												
2000	91																												
2200	89																												
N-BK7 with MgF₂ Coating Typical Transmission <table border="1"><caption>N-BK7 with MgF₂ Coating Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>400</td><td>95</td></tr><tr><td>500</td><td>97</td></tr><tr><td>600</td><td>96</td></tr><tr><td>800</td><td>95</td></tr><tr><td>1000</td><td>94</td></tr><tr><td>1200</td><td>93</td></tr><tr><td>1400</td><td>93</td></tr><tr><td>1600</td><td>92</td></tr><tr><td>1800</td><td>91</td></tr><tr><td>2000</td><td>90</td></tr><tr><td>2200</td><td>89</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	400	95	500	97	600	96	800	95	1000	94	1200	93	1400	93	1600	92	1800	91	2000	90	2200	89	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
Wavelength (nm)	Transmission T (%)																												
200	70																												
300	85																												
400	95																												
500	97																												
600	96																												
800	95																												
1000	94																												
1200	93																												
1400	93																												
1600	92																												
1800	91																												
2000	90																												
2200	89																												
N-BK7 with VIS-EXT Coating Typical Transmission <table border="1"><caption>N-BK7 with VIS-EXT Coating Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>350</td><td>95</td></tr><tr><td>400</td><td>98</td></tr><tr><td>500</td><td>99</td></tr><tr><td>600</td><td>98</td></tr><tr><td>700</td><td>98</td></tr><tr><td>800</td><td>95</td></tr><tr><td>900</td><td>90</td></tr><tr><td>1000</td><td>85</td></tr><tr><td>1100</td><td>80</td></tr><tr><td>1200</td><td>78</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	350	95	400	98	500	99	600	98	700	98	800	95	900	90	1000	85	1100	80	1200	78	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: $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data		
Wavelength (nm)	Transmission T (%)																												
200	70																												
300	85																												
350	95																												
400	98																												
500	99																												
600	98																												
700	98																												
800	95																												
900	90																												
1000	85																												
1100	80																												
1200	78																												
N-BK7 with VIS-NIR Coating Typical Transmission <table border="1"><caption>N-BK7 with VIS-NIR Coating Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>300</td><td>85</td></tr><tr><td>400</td><td>98</td></tr><tr><td>500</td><td>96</td></tr><tr><td>600</td><td>98</td></tr><tr><td>700</td><td>97</td></tr><tr><td>800</td><td>98</td></tr><tr><td>900</td><td>98</td></tr><tr><td>1000</td><td>95</td></tr><tr><td>1100</td><td>90</td></tr><tr><td>1200</td><td>85</td></tr><tr><td>1300</td><td>80</td></tr><tr><td>1400</td><td>75</td></tr></tbody></table>	Wavelength (nm)	Transmission T (%)	200	70	300	85	400	98	500	96	600	98	700	97	800	98	900	98	1000	95	1100	90	1200	85	1300	80	1400	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
Wavelength (nm)	Transmission T (%)																												
200	70																												
300	85																												
400	98																												
500	96																												
600	98																												
700	97																												
800	98																												
900	98																												
1000	95																												
1100	90																												
1200	85																												
1300	80																												
1400	75																												

2004006008001000120014001600 Wavelength (nm)	
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

Coating Curves

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.

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](#).
