

[See all 423 Products in Family](#)

TECHSPEC[®] 18.0mm Dia. x 50.0mm FL, NIR II, Inked, Plano-Convex Lens



Stock **#38-420-INK** [CONTACT US](#)

☐ [Other Coating Options](#)

-

1

+

A\$92^{.00}

ADD TO CART

Volume Pricing	
Qty 1-9	A\$92.00 each
Qty 10-24	A\$83.20 each
Qty 25-49	A\$73.60 each
Need More?	Request Quote

Product Downloads

General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

18.00 ±0.025

<1	Centering (arcmin):
2.90 ±0.10	Center Thickness CT (mm):
1.28	Edge Thickness ET (mm):
17	Clear Aperture CA (mm):
Protective as needed	Bevel:

Optical Properties

50.00 @ 587.6nm	Effective Focal Length EFL (mm):
48.09	Back Focal Length BFL (mm):
NIR II (750-1550nm)	Coating:
R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm	Coating Specification:
N-BK7	Substrate: ☐
40-20	Surface Quality:
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
±1	Focal Length Tolerance (%):
25.84	Radius R ₁ (mm):
2.78	f/#:
0.18	Numerical Aperture NA:
750 - 1550	Wavelength Range (nm):
8 J/cm ² @ 1064nm, 10ns	Damage Threshold, By Design: ☐

Regulatory Compliance

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

Product Details

- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [VIS-EXT](#), and [YAG-BBAR](#)

TECHSPEC® NIR II Coated Plano-Convex 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® NIR II Coated Plano-Convex 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 [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [VIS-EXT](#), and [YAG-BBAR](#).

Technical Information





N-BK7

Uncoated N-BK7 Typical Transmission



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

[Click Here to Download Data](#)

N-BK7 with MgF₂ Coating Typical Transmission



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](#)

N-BK7 with VIS-EXT Coating Typical Transmission



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](#)

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:

$$\begin{aligned} R_{abs} &\leq 0.25\% @ 880\text{nm} \\ R_{avg} &\leq 1.25\% @ 400 - 870\text{nm} \\ R_{avg} &\leq 1.25\% @ 890 - 1000\text{nm} \end{aligned}$$

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

[Click Here to Download Data](#)

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](#).

Compatible Mounts
