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TECHSPEC<sup>®</sup> 12.7mm Dia. x 50.8mm FL, NIR II Coated, Plano-Convex Lens



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1

+

₹3,270

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| Qty 1-9        | ₹3,270 each                   |
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General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

12.70 +0.0/-0.025

|                                                                                                                        |                                  |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <1                                                                                                                     | Centering (arcmin):              |
| 2.50 ±0.10                                                                                                             | Center Thickness CT (mm):        |
| 1.72                                                                                                                   | Edge Thickness ET (mm):          |
| 11.7                                                                                                                   | Clear Aperture CA (mm):          |
| Protective as needed                                                                                                   | Bevel:                           |
| Optical Properties                                                                                                     |                                  |
| 50.80 @ 587.6nm                                                                                                        | Effective Focal Length EFL (mm): |
| 49.15                                                                                                                  | Back Focal Length BFL (mm):      |
| NIR II (750-1550nm)                                                                                                    | Coating:                         |
| R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤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 (%):      |
| 26.25                                                                                                                  | Radius R <sub>1</sub> (mm):      |
| 4                                                                                                                      | f/#:                             |
| 0.13                                                                                                                   | Numerical Aperture NA:           |
| 750 - 1550                                                                                                             | Wavelength Range (nm):           |
| 8 J/cm <sup>2</sup> @ 1064nm, 10ns                                                                                     | Damage Threshold, Reference: □   |
| Regulatory Compliance                                                                                                  |                                  |
| Compliant                                                                                                              | RoHS 2015:                       |
| View                                                                                                                   | Certificate of Conformance:      |
| Compliant                                                                                                              | Reach 235:                       |
| Japan                                                                                                                  | Country of Origin:               |
| Edmund Optics India Private Limited                                                                                    | Imported By:                     |

## 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](#), [MgF<sub>2</sub>](#), [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 [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [VIS-EXT](#), and [YAG-BBAR](#).

## Technical Information



N-BK7

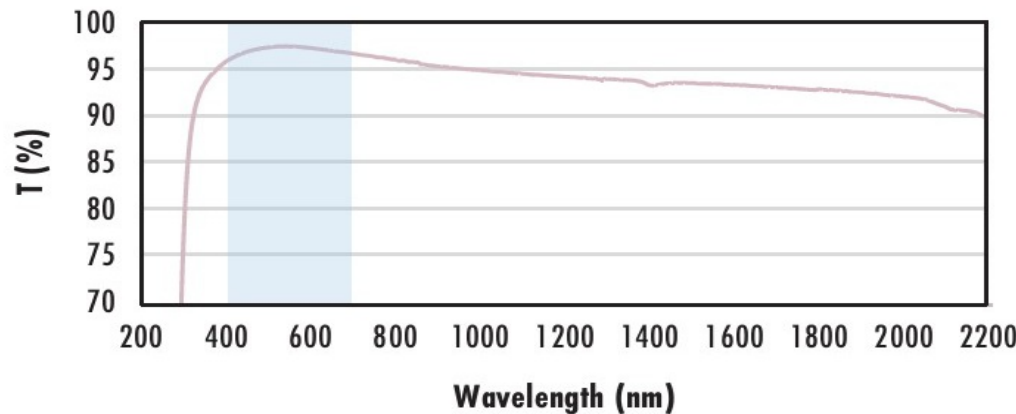
Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

N-BK7 with MgF<sub>2</sub> Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

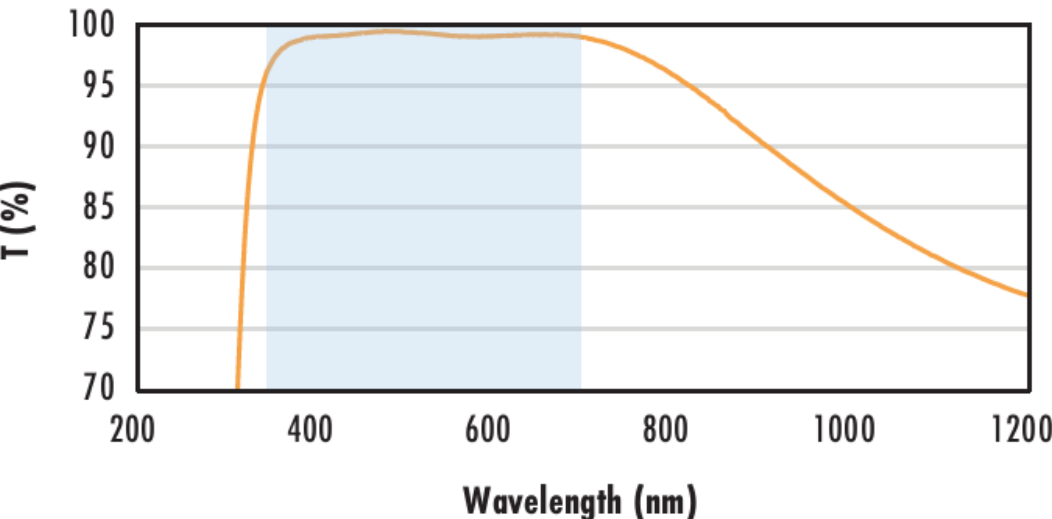
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$  (N-BK7)

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

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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.

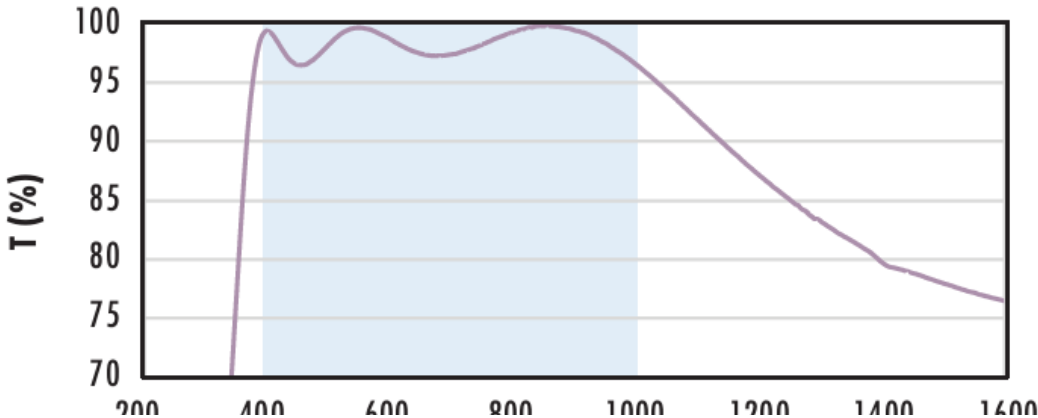
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$

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

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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.

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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

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