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TECHSPEC® 20mm Diameter x -100 FL, NIR II Coated, Plano-Concave Lens



Stock #22-248 **5 In Stock**

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1 MRP ₹5,020

Price inclusive of all taxes

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Volume Pricing	
Qty 1-9	₹5,020 each
Qty 10-25	₹4,516 each
Qty 26-49	₹4,011 each
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General

Plano-Concave Lens **Type:**

Physical & Mechanical Properties

Diameter (mm):

20.00 +0.0/-0.025

Bevel:

Protective as needed

Center Thickness CT (mm):

3.50 ±0.10

Centering (arcmin):

<1

Clear Aperture CA (mm):

19.00

Edge Thickness ET (mm):

4.42

Optical Properties

Effective Focal Length EFL (mm):

-100.00

Substrate:

N-BK7

f#:

4.00

Numerical Aperture NA:

0.13

Coating:

NIR II (750-1550nm)

Wavelength Range (nm):

750 - 1550

Back Focal Length BFL (mm):

-102.88

Coating Specification:

R_{abs} ≤1.5% @ 750 - 800nm
R_{abs} ≤1.0% @ 800 - 1550nm
R_{avg} ≤0.7% @ 750 - 1550nm

Focal Length Specification Wavelength (nm):

587.6

Focal Length Tolerance (%):

±1

Radius R₁ (mm):

-51.68

Surface Quality:

40-20

Damage Threshold, Reference:

8 J/cm² @ 1064nm, 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

Country of Origin:

China

Imported By:

Edmund Optics India Private Limited
267, Greystone Building, Second Floor,
6th Cross Rd, Binnamangala,
Stage 1, Indiranagar, Bengaluru,
Karnataka, India 560038
Phone: +91- 80-6845 0000

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

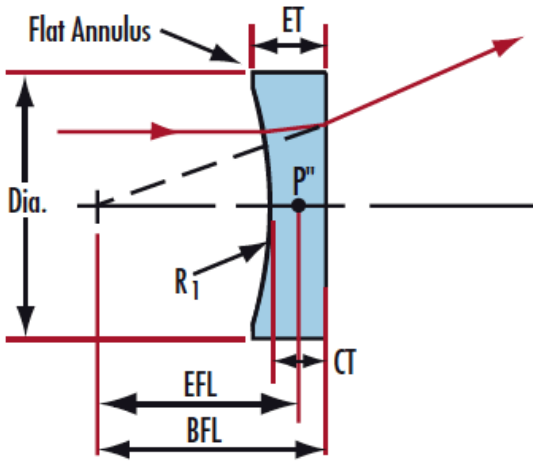
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

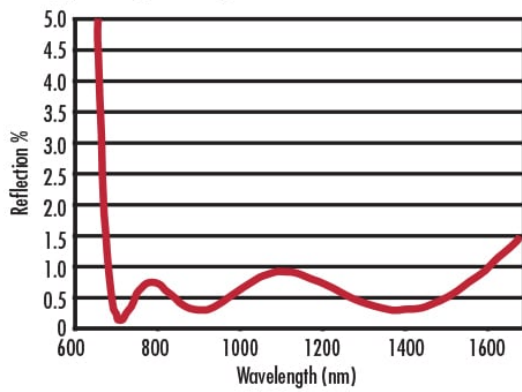
- AR Coated to Provide <math><0.7\%</math> Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), and [NIR I](#)

TECHSPEC® NIR II Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the lens's output side 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 II Coated Plano-Concave (PCV) Lenses offer optimal performance in the 750 to 1550nm range. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), or with [NIR I](#) AR coating options.

Technical Information



NIR II Coating
 $R_{avg} \leq 0.7\%$ @ 750 - 1550nm, $R_{abs} \leq 1.0\%$ @ 800 - 1550nm
 Typ. Energy Density Limit: 8 J/cm² @ 1064nm, 10ns



N-BK7

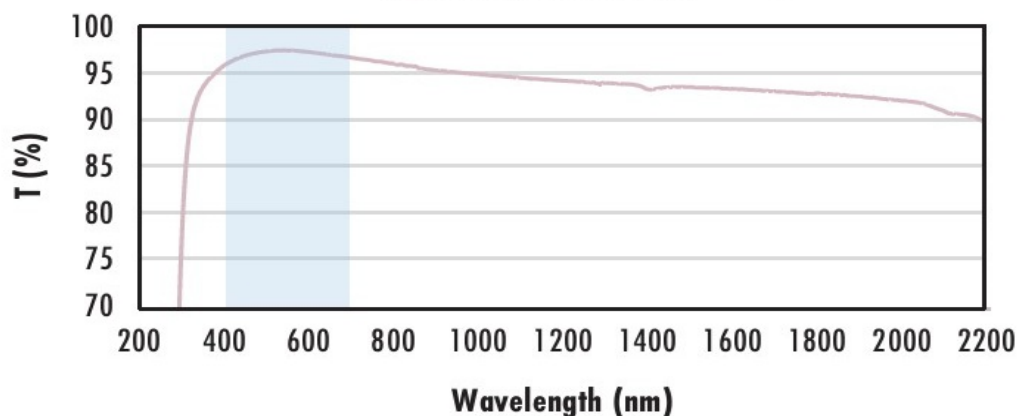
Uncoated N-BK7 Typical Transmission



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:

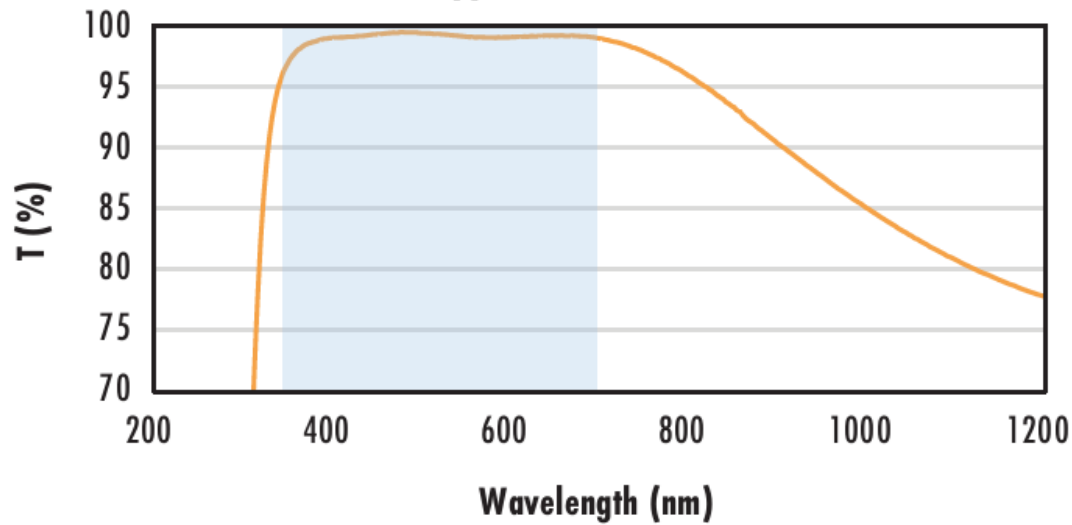
$R_{avg} \leq 1.75\%$ @ 400 - 700nm (N-BK7)

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.

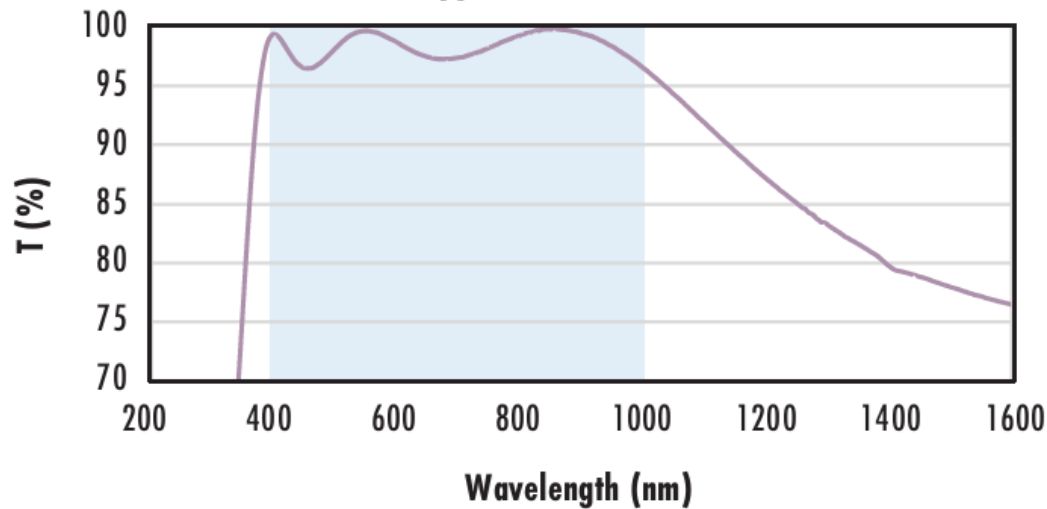
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

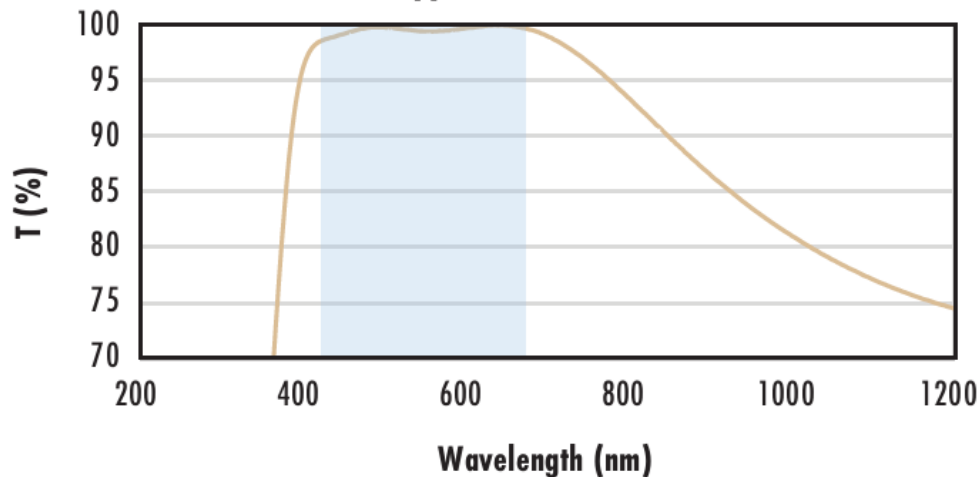
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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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.

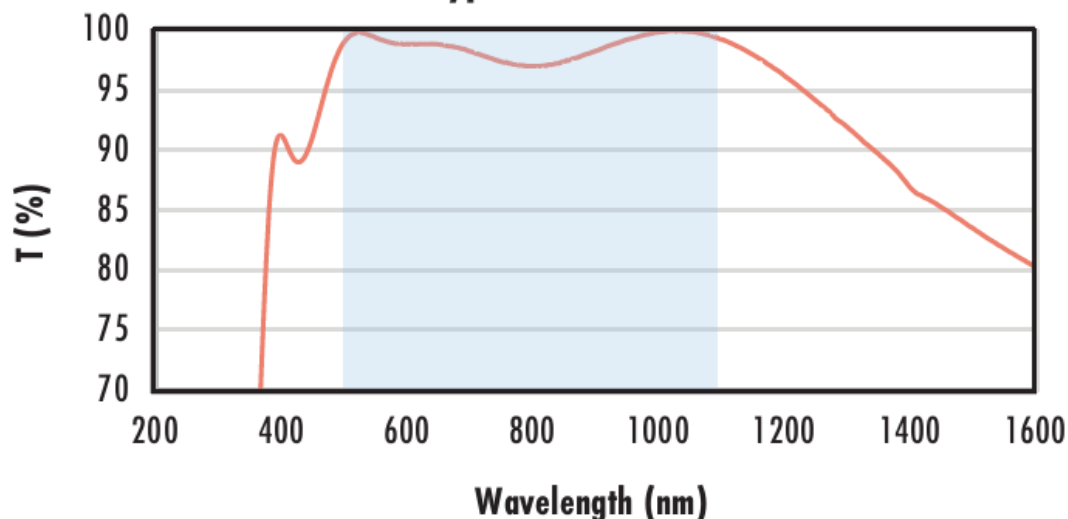
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.4\% @ 425 - 675nm$$

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

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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.

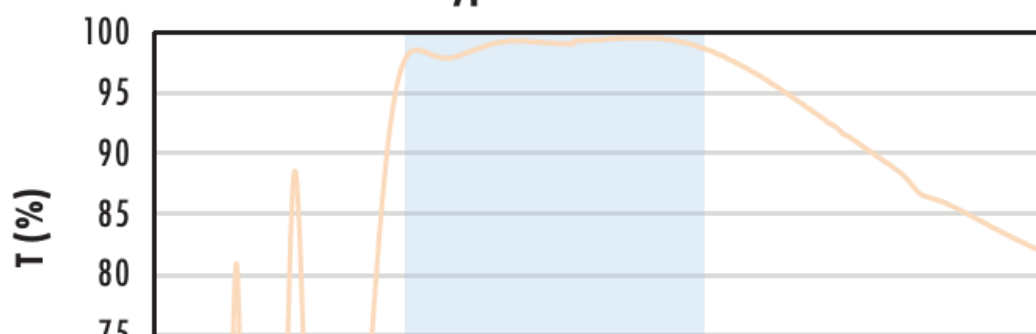
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$\begin{aligned} R_{abs} &\leq 0.25\% @ 532nm \\ R_{abs} &\leq 0.25\% @ 1064nm \\ R_{avg} &\leq 1.0\% @ 500 - 1100nm \end{aligned}$$

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

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N-BK7 with NIR I Coating Typical Transmission



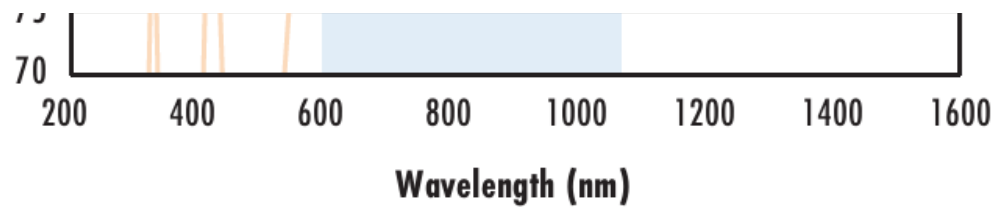
Typical transmission of a 3mm thick N-BK7 window with NIR I (600-1050nm) coating at 0° AOI.

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

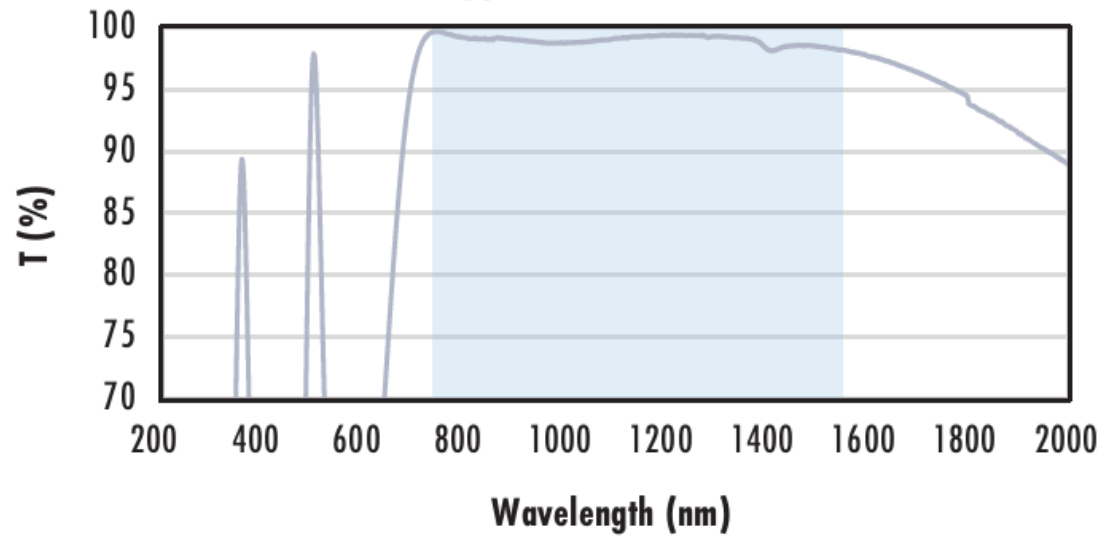
$$R_{avg} \leq 0.5\% @ 600 - 1050nm$$

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

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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.

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