

TECHSPEC<sup>®</sup> 15mm Dia. x 20mm FL, VIS-NIR Coated, Double-Convex Lens



Stock **#63-671** **5 In Stock**

☐ [Other Coating Options](#)

-

1

+

S\$69<sup>44</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | <b>S\$69.44</b> each          |
| Qty 10-24      | <b>S\$62.36</b> each          |
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SPECIFICATIONS

General

Type:

|                                                                                                                     |                                                   |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Double-Convex Lens                                                                                                  |                                                   |
| Physical & Mechanical Properties                                                                                    |                                                   |
| 15.00 +0.0/-0.025                                                                                                   | Diameter (mm):                                    |
| <1                                                                                                                  | Centering (arcmin):                               |
| Protective as needed                                                                                                | Bevel:                                            |
| 3.50                                                                                                                | Center Thickness CT (mm):                         |
| ±0.10                                                                                                               | Center Thickness Tolerance (mm):                  |
| 1.63                                                                                                                | Edge Thickness ET (mm):                           |
| 14.00                                                                                                               | Clear Aperture CA (mm):                           |
| Optical Properties                                                                                                  |                                                   |
| 18.99                                                                                                               | Back Focal Length BFL (mm):                       |
| 20.00                                                                                                               | Effective Focal Length EFL (mm):                  |
| VIS-NIR (400-1000nm)                                                                                                | Coating:                                          |
| R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870 nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm | Coating Specification:                            |
| N-SF11                                                                                                              | Substrate: <input type="text"/>                   |
| 40-20                                                                                                               | Surface Quality:                                  |
| 1.5λ                                                                                                                | Power (P-V) @ 632.8nm:                            |
| λ/4                                                                                                                 | Irregularity (P-V) @ 632.8nm:                     |
| 30.60                                                                                                               | Radius R <sub>1</sub> =R <sub>2</sub> (mm):       |
| 1.33                                                                                                                | f#:                                               |
| 587.6                                                                                                               | Focal Length Specification Wavelength (nm):       |
| ±1                                                                                                                  | Focal Length Tolerance (%):                       |
| 0.38                                                                                                                | Numerical Aperture NA:                            |
| 400 - 1000                                                                                                          | Wavelength Range (nm):                            |
| 5 J/cm² @ 532nm, 10ns                                                                                               | Damage Threshold, By Design: <input type="text"/> |
| Regulatory Compliance                                                                                               |                                                   |
| Compliant                                                                                                           | RoHS 2015:                                        |
| View                                                                                                                | Certificate of Conformance:                       |
| Compliant                                                                                                           | Reach 235:                                        |

## PRODUCT DETAILS

- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
  - Minimize Aberrations Including Spherical and Coma
  - [UV Fused Silica DCX Lenses](#) Available
  - Other Coating Options Available: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)
- TECHSPEC® VIS-NIR Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or cancelled due to the symmetric lens design. TECHSPEC® VIS-NIR Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

## TECHNICAL INFORMATION



# N-BK7

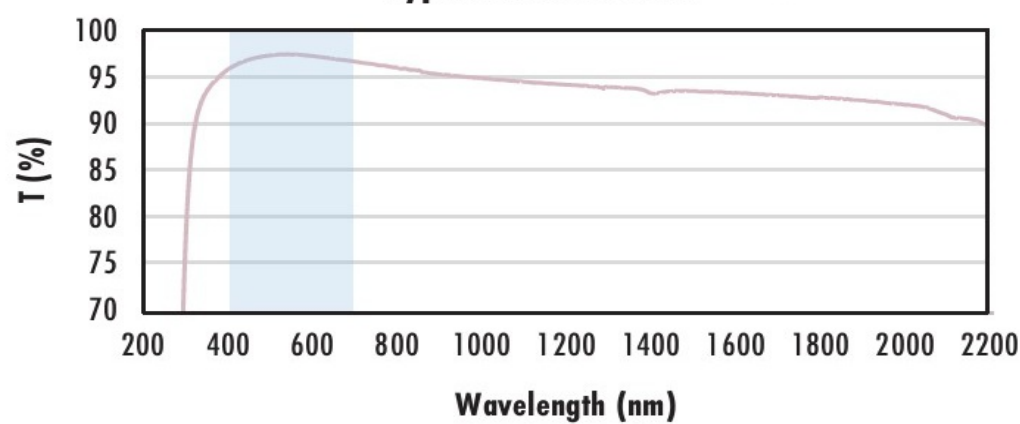
## Uncoated N-BK7 Typical Transmission



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.

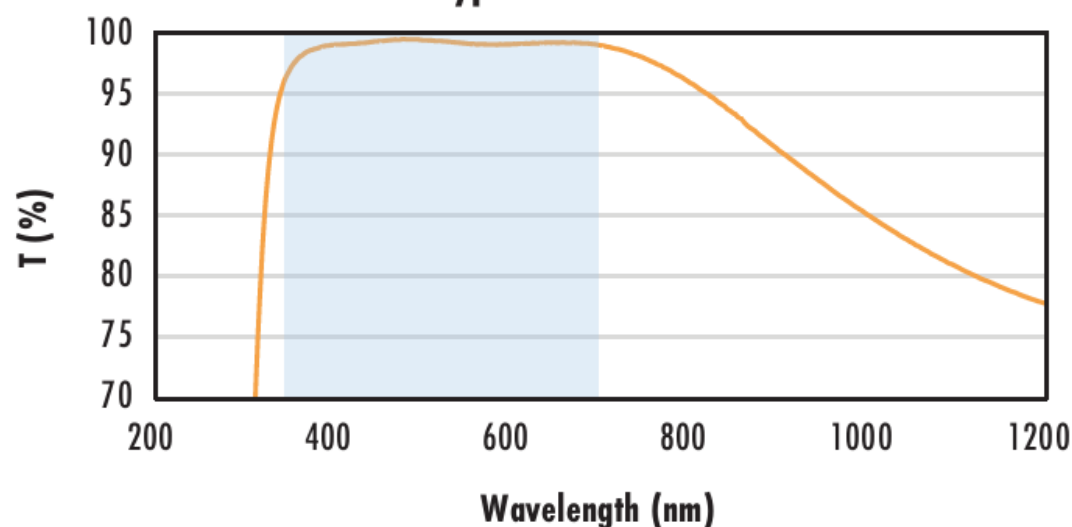
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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.

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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:

$R_{abs} \leq 0.25\% @ 880\text{nm}$

$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$

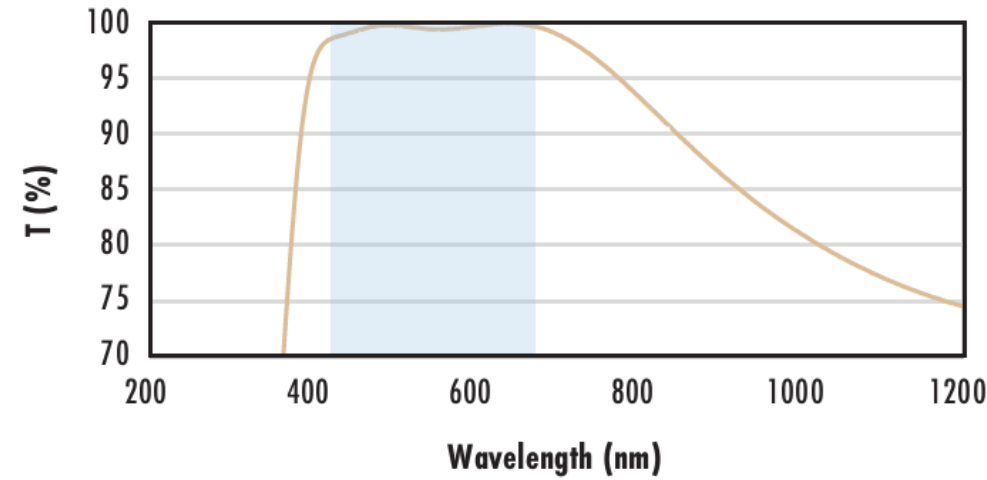
$R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$



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

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**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:

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

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:

$$R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}$$

$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

$$R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$$

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:

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

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:

$$R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}$$

$$R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}$$

$$R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}$$

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](#).

## COMPATIBLE MOUNTS

