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## TECHSPEC® 50mm Dia. x 100mm FL VIS-EXT Coated, Double-Convex Lens



Stock #89-201 **2 In Stock**

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1  MRP ₹8,374

Price inclusive of all taxes

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Volume Pricing	
Qty 1-9	₹8,374 each
Qty 10-24	₹7,517 each
Qty 25-99	₹6,709 each
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### Product Downloads

### General

Type:  
Double-Convex Lens

### Physical & Mechanical Properties

Diameter (mm):

50.00 +0.000/-0.025

**Centering (arcmin):**

<1

**Bevel:**

Protective as needed

**Center Thickness CT (mm):**

10.00

**Center Thickness Tolerance (mm):**

±0.10

**Edge Thickness ET (mm):**

3.76

**Clear Aperture CA (mm):**

49.00

## Optical Properties

**Back Focal Length BFL (mm):**

96.65

**Effective Focal Length EFL (mm):**

100.00

**Coating:**

VIS-EXT (350-700nm)

**Coating Specification:**

R<sub>avg</sub> <0.5% @ 350 - 700nm

**Substrate:**

**N-BK7**

**Surface Quality:**

40-20

**Power (P-V) @ 632.8nm:**

1.5λ

**Irregularity (P-V) @ 632.8nm:**

λ/4

**Radius R<sub>1</sub>=R<sub>2</sub> (mm):**

101.63

**f##:**

2.00

**Focal Length Specification Wavelength (nm):**

587.6

**Focal Length Tolerance (%):**

±1

**Numerical Aperture NA:**

0.25

**Wavelength Range (nm):**

350 - 700

## Regulatory Compliance

**RoHS 2015:**

**Compliant**

**Certificate of Conformance:**

[View](#)

**Reach 235:**

**Compliant**

**Country of Origin:**

Japan

**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

## Product Details

- AR Coated to Provide <0.5% Reflectance per Surface for 350 - 700nm
- 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-NIR](#), and [YAG-BBAR](#)

TECHSPEC® VIS-EXT 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-EXT Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

## Technical Information

### 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



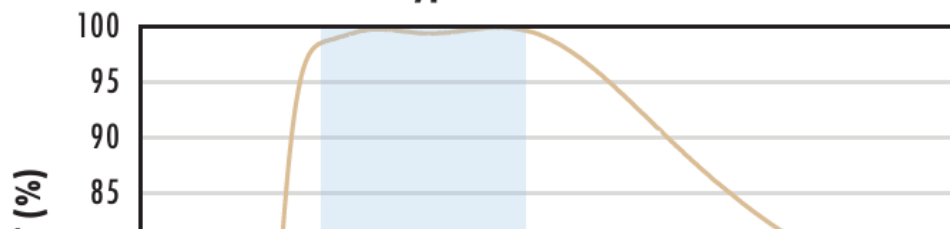
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$   
 Data outside this range is not guaranteed and is for reference only.  
[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:  
 $R_{abs} \leq 0.25\% @ 880\text{nm}$   
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$   
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$   
 Data outside this range is not guaranteed and is for reference only.  
[Click Here to Download Data](#)

### 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:  
 $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$   
 Data outside this range is not guaranteed and is for reference only.



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:

$R_{abs} \leq 0.25\%$  @ 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.

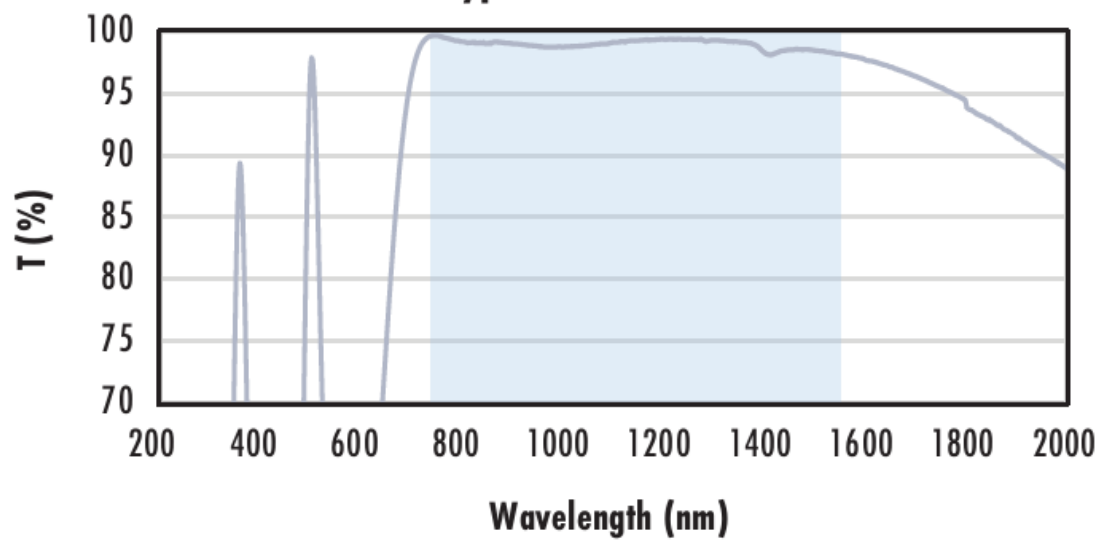
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 0.5\%$  @ 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.

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**Compatible Mounts**