

[See all 165 Products in Family](#)

TECHSPEC® 10mm Dia. x 20mm FL, VIS-EXT Coated, Double-Convex Lens



Stock **#89-144** **5 In Stock**

[Other Coating Options](#)

1 MRP ₹4,944

Price inclusive of all taxes

ADD TO CART

Volume Pricing	
Qty 1-9	₹4,944 each
Qty 10-24	₹4,439 each
Qty 25-99	₹3,960 each
Need More?	Request Quote

Product Downloads

General

Double-Convex Lens **Type:**

Physical & Mechanical Properties

Diameter (mm):

10.00 +0.000/-0.025

Centering (arcmin):

<1

Bevel:

Protective as needed

Center Thickness CT (mm):

2.50

Center Thickness Tolerance (mm):

±0.05

Edge Thickness ET (mm):

1.25

Clear Aperture CA (mm):

9.00

Optical Properties

Back Focal Length BFL (mm):

19.16

Effective Focal Length EFL (mm):

20.00

Coating:

VIS-EXT (350-700nm)

Coating Specification:

R_{avg} <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 R₁=R₂ (mm):

20.24

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, MgF₂, 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 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



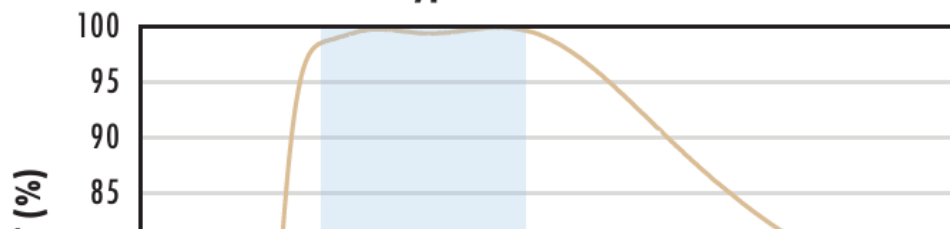
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$
 Data outside this range is not guaranteed and is for reference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



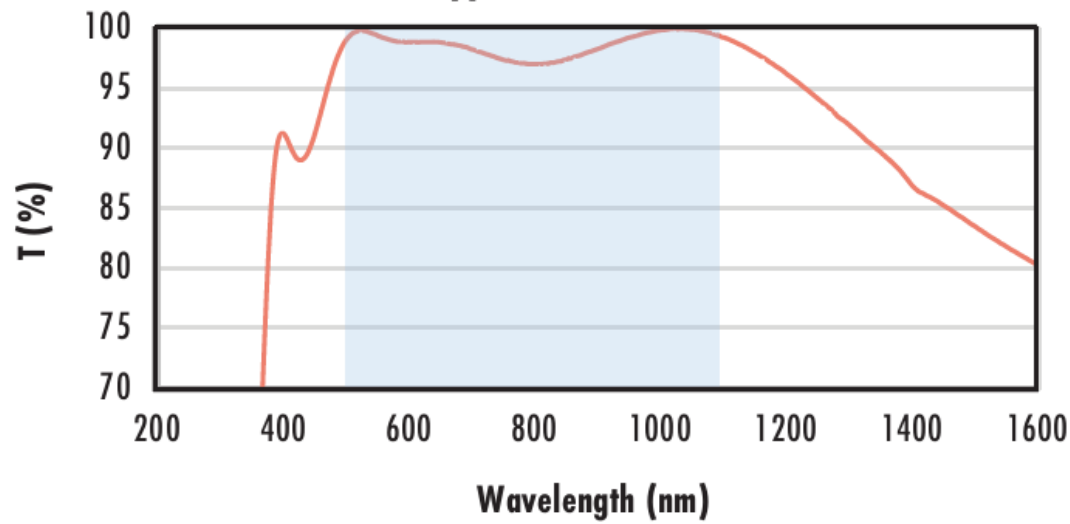
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$
 Data outside this range is not guaranteed and is for reference only.



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

[Click Here to Download Data](#)

**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.

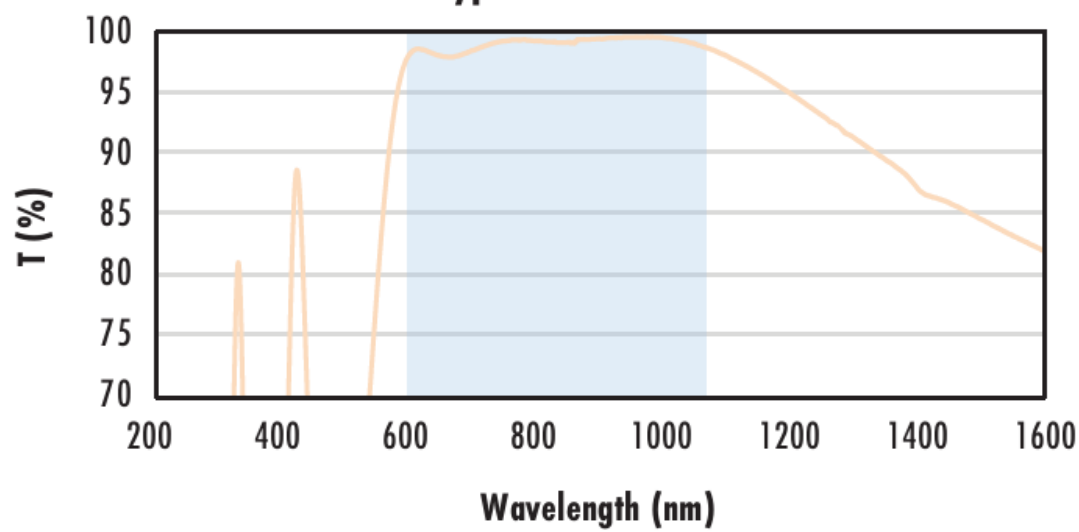
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\% @ 532\text{nm}$
 $R_{abs} \leq 0.25\% @ 1064\text{nm}$
 $R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$

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:

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

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:

$R_{abs} \leq 1.5\% @ 750 - 800\text{nm}$
 $R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}$
 $R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}$

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

[Click Here to Download Data](#)

Compatible Mounts