

**TECHSPEC® 30mm Dia. x 50mm FL, VIS-NIR, Inked, Double-Convex Lens**



Stock **#45-898-INK** [CONTACT US](#)

⊖ 1 ⊕ **A\$123<sup>20</sup>**

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Volume Pricing	
Qty 1-9	<b>A\$123.20</b> each
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Qty 25-99	<b>A\$98.40</b> each
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**SPECIFICATIONS**

**General**

Double-Convex Lens      **Type:**

## Physical & Mechanical Properties

30.00 Diameter (mm):

<1 Centering (arcmin):

Protective as needed Bevel:

6.55 Center Thickness CT (mm):

±0.10 Center Thickness Tolerance (mm):

2.00 Edge Thickness ET (mm):

29.00 Clear Aperture CA (mm):

## Optical Properties

47.82 Back Focal Length BFL (mm):

50.00 Effective Focal Length EFL (mm):

MS-NIR (400-1000nm) Coating:

Coating Specification:  
 $R_{\text{abs}} \leq 0.25\% @ 880\text{nm}$   
 $R_{\text{avg}} \leq 1.25\% @ 400 - 870 \text{ nm}$   
 $R_{\text{avg}} \leq 1.25\% @ 890 - 1000\text{nm}$

N-BK7 Substrate:

40-20 Surface Quality:

50.56 Radius  $R_1=R_2$  (mm):

1.67 f#:

±1 Focal Length Tolerance (%):

0.30 Numerical Aperture NA:

400 - 1000 Wavelength Range (nm):

## Regulatory Compliance

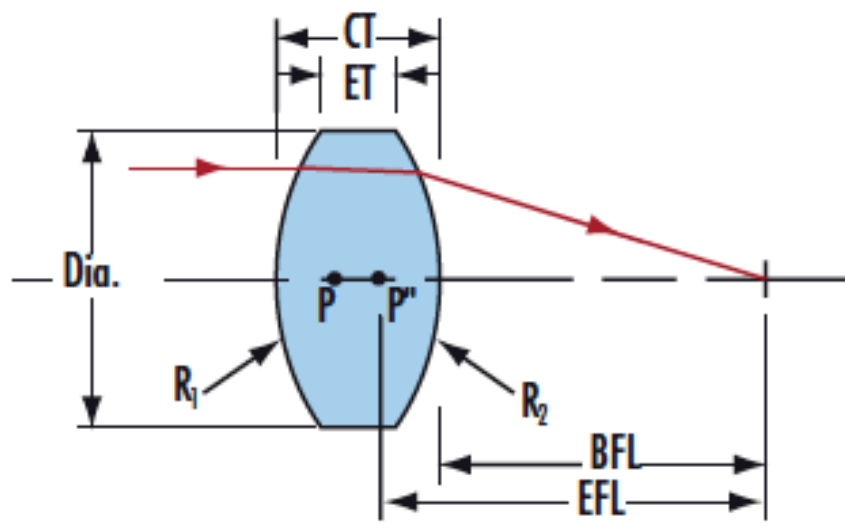
[View](#) Certificate of Conformance:

## 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](#)

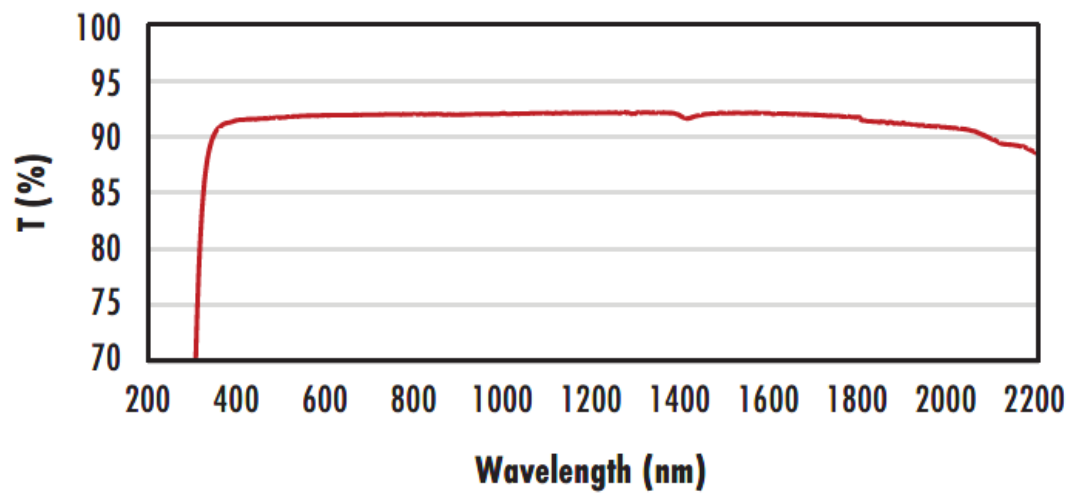
TECHSPEC® VIS-NIR Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) 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

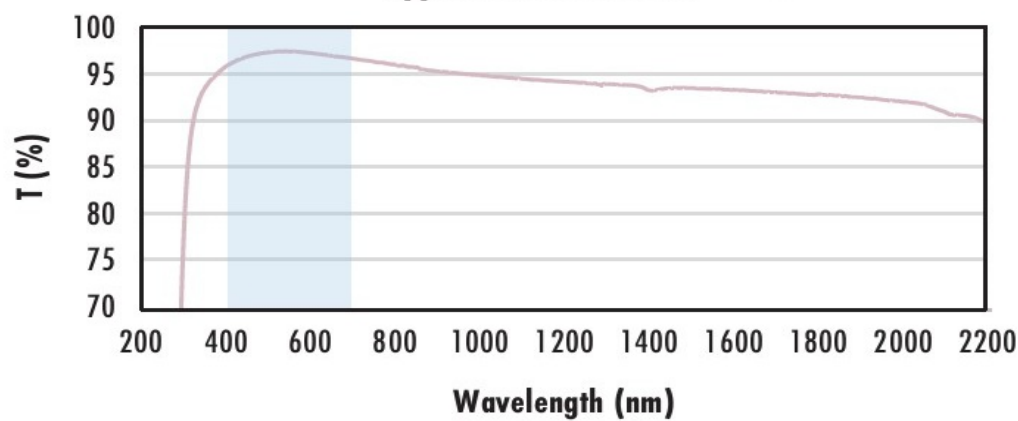
### Uncoated N-BK7 Typical Transmission



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.

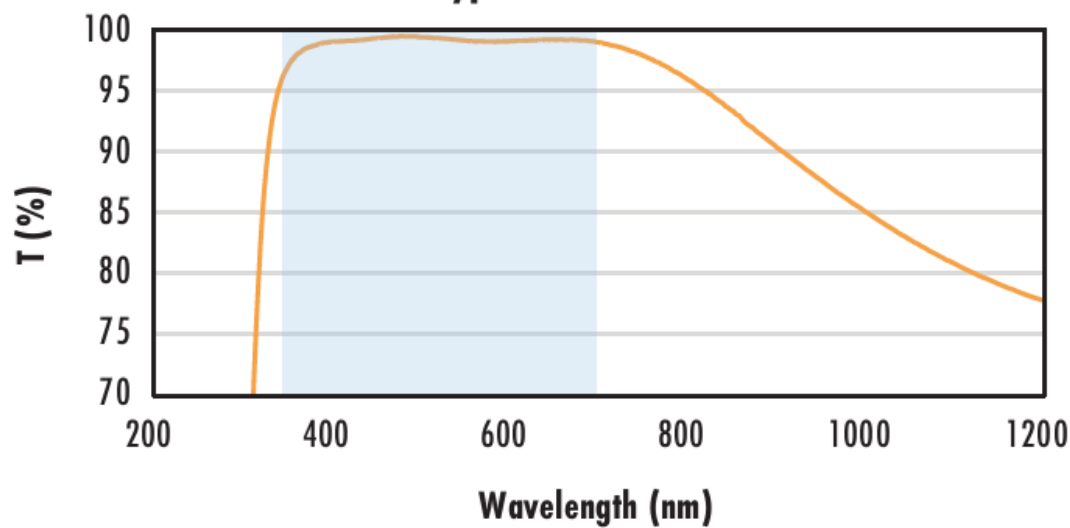
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

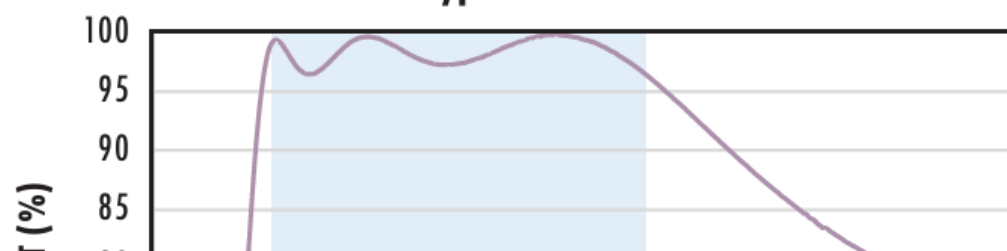
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

### N-BK7 with VIS-NIR Coating Typical Transmission



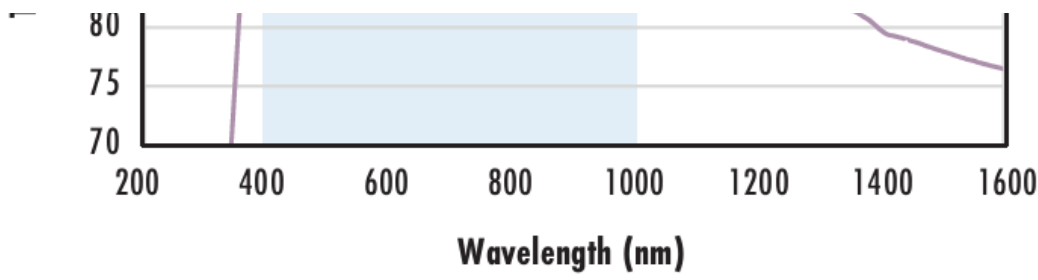
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

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

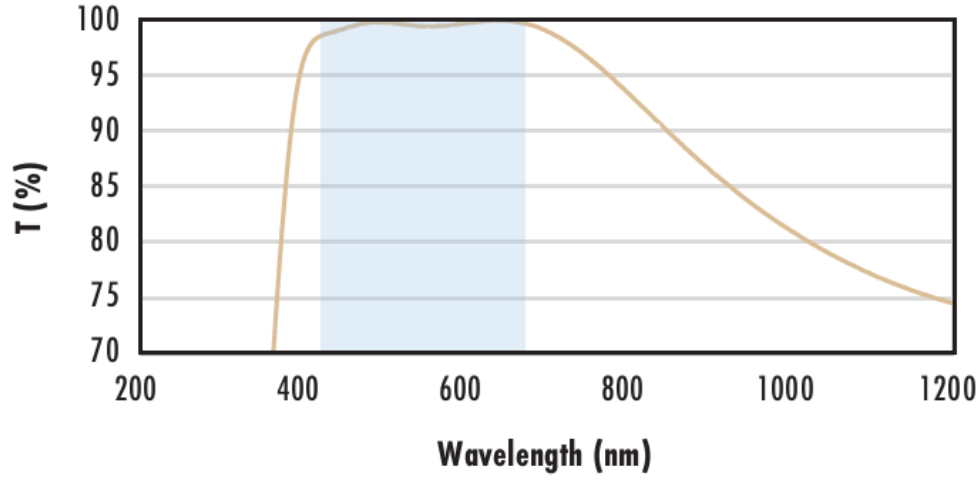
$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

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



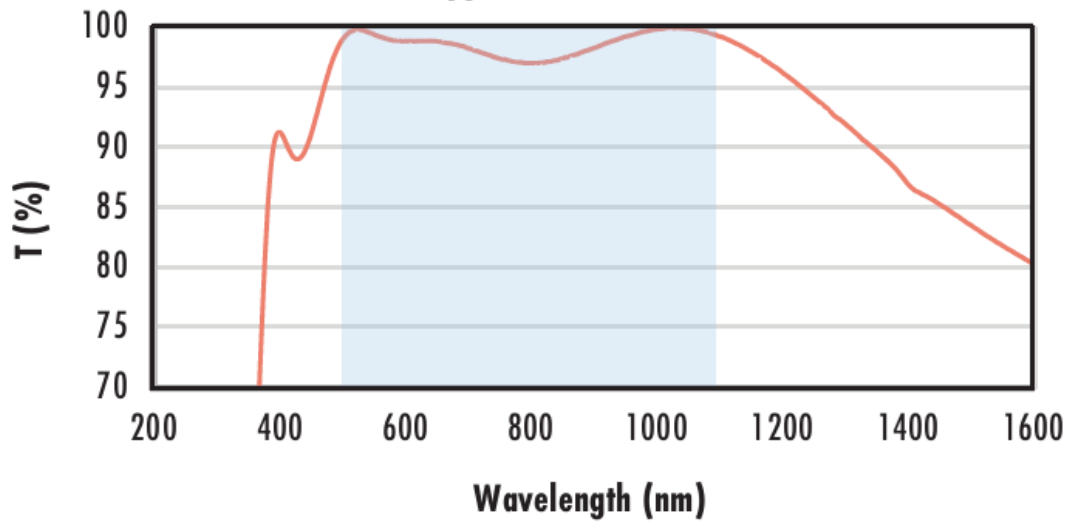
Data outside this range is not guaranteed and is for reference only.  
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**N-BK7 with VIS 0° Coating  
Typical Transmission**



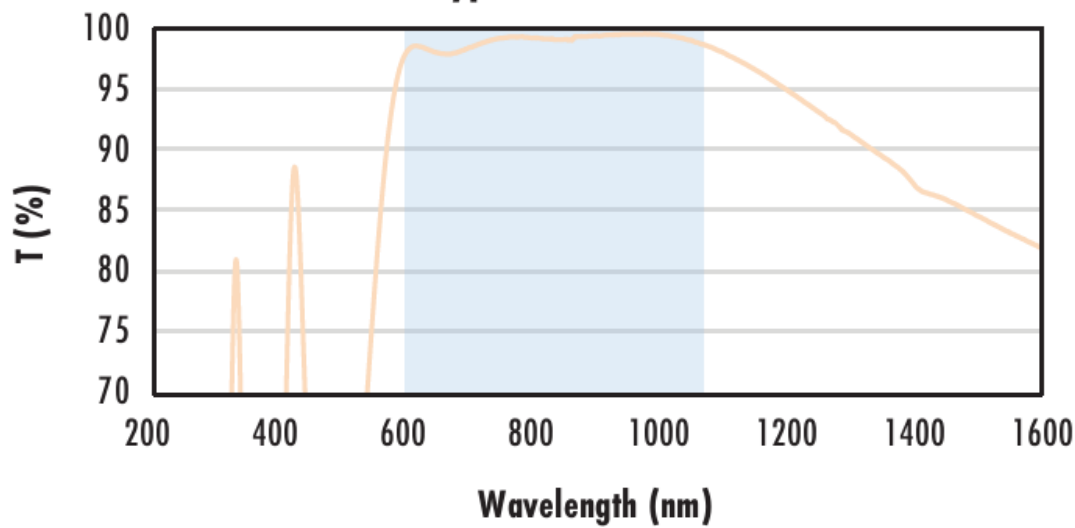
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$   
 Data outside this range is not guaranteed and is for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



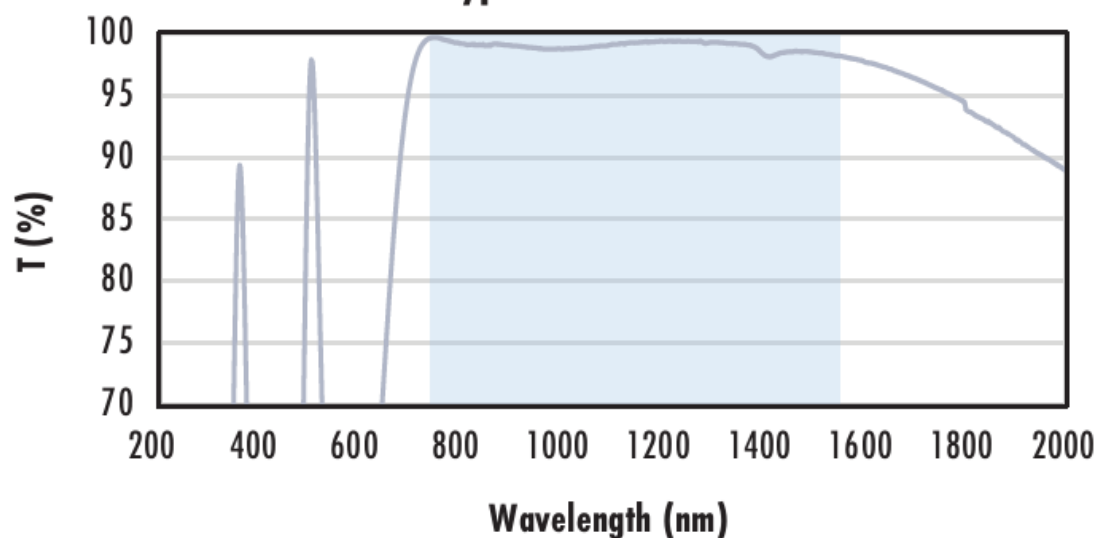
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.  
 The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{abs} \leq 0.25\% @ 532\text{nm}$   
 $R_{abs} \leq 0.25\% @ 1064\text{nm}$   
 $R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$   
 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](#)

## COATING CURVES

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## CUSTOM

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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

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