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**TECHSPEC® 50mm Dia. x 100mm FL YAG-BBAR Coated, Inked, Double-Convex Lens**



YAG-BBAR Coated Double-Convex (DCX) Lenses



Stock #89-290-INK [CONTACT US](#)

⊖ 1 ⊕ €94.<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-9	€94,00 each
Qty 10-24	€84,50 each
Qty 25-99	€75,00 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

**General**

Double-Convex Lens **Type:**

**Physical & Mechanical Properties**

50.00 ±0.025	<b>Diameter (mm):</b>
<1	<b>Centering (arcmin):</b>
Protective as needed	<b>Bevel:</b>
10.00	<b>Center Thickness CT (mm):</b>
±0.10	<b>Center Thickness Tolerance (mm):</b>
3.76	<b>Edge Thickness ET (mm):</b>
49.00	<b>Clear Aperture CA (mm):</b>

### Optical Properties

96.65	<b>Back Focal Length BFL (mm):</b>
100.00	<b>Effective Focal Length EFL (mm):</b>
YAG-BBAR (500-1100nm)	<b>Coating:</b>
R <sub>abs</sub> <0.25% @ 532nm R <sub>abs</sub> <0.25% @ 1064nm R <sub>avg</sub> <1.0% @ 500 - 1100nm	<b>Coating Specification:</b>
N-BK7	<b>Substrate:</b> <input type="checkbox"/>
40-20	<b>Surface Quality:</b>
101.63	<b>Radius R<sub>1</sub>=R<sub>2</sub> (mm):</b>
2.00	<b>f/#:</b>
587.6	<b>Focal Length Specification Wavelength (nm):</b>
±1	<b>Focal Length Tolerance (%):</b>
0.25	<b>Numerical Aperture NA:</b>
350 - 2200	<b>Wavelength Range (nm):</b>

### Regulatory Compliance

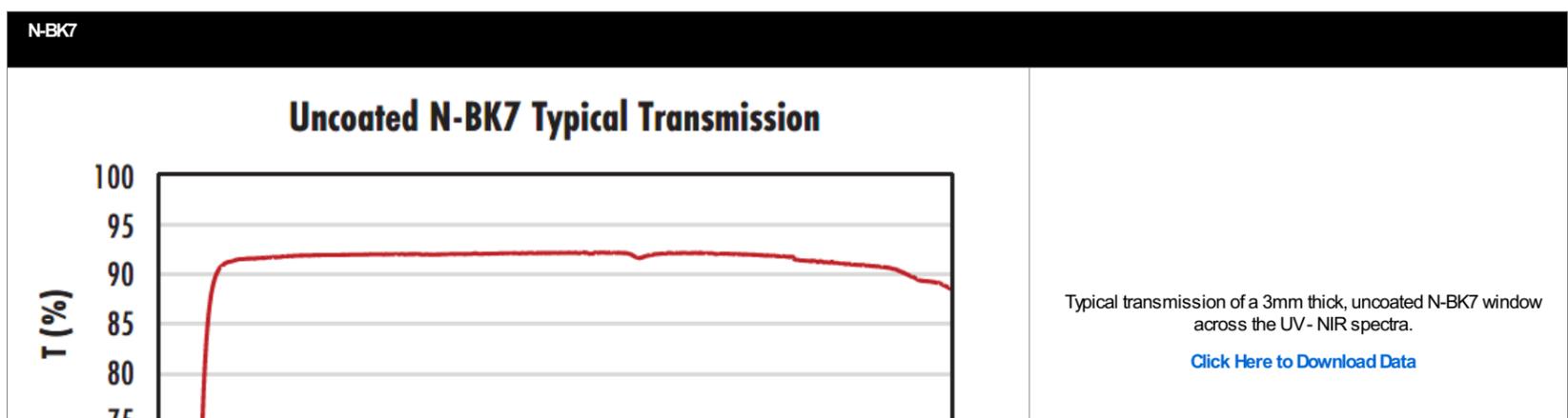
<a href="#">View</a>	<b>Certificate of Conformance:</b>
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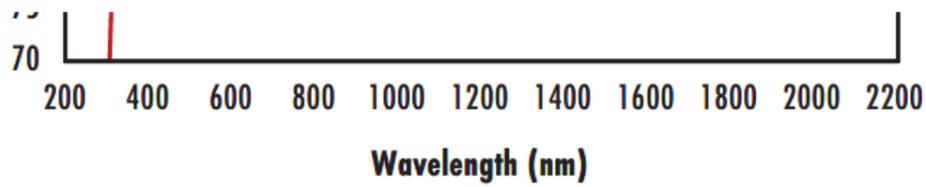
## Product Details

- Optimized for R<0.25% @ 532nm and 1064nm
- 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 [VIS-NIR](#)

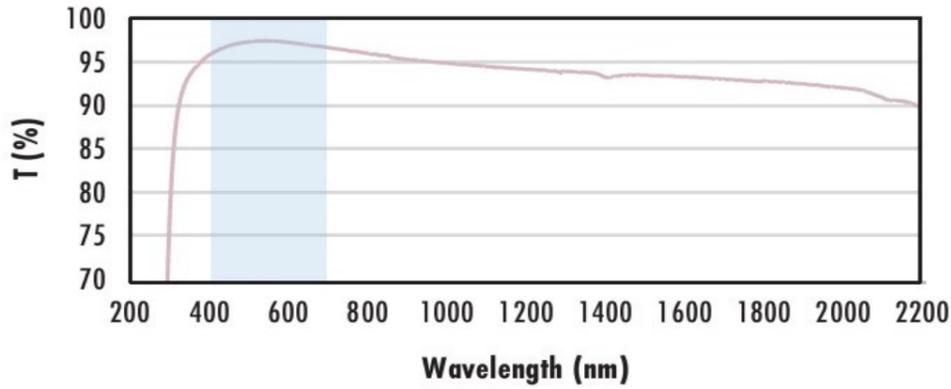
TECHSPEC® YAG-BBAR Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) 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 YAG-BBAR Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

## Technical Information



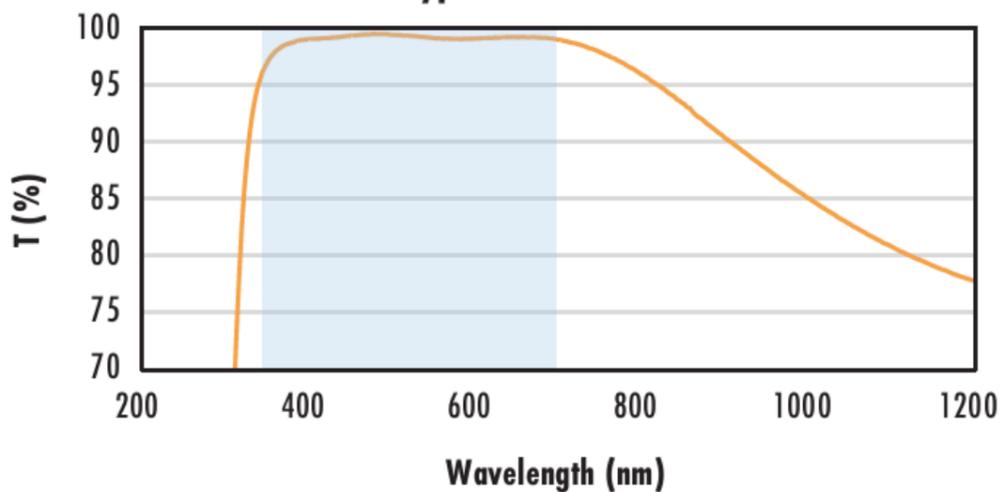


**N-BK7 with MgF<sub>2</sub> Coating  
Typical Transmission**



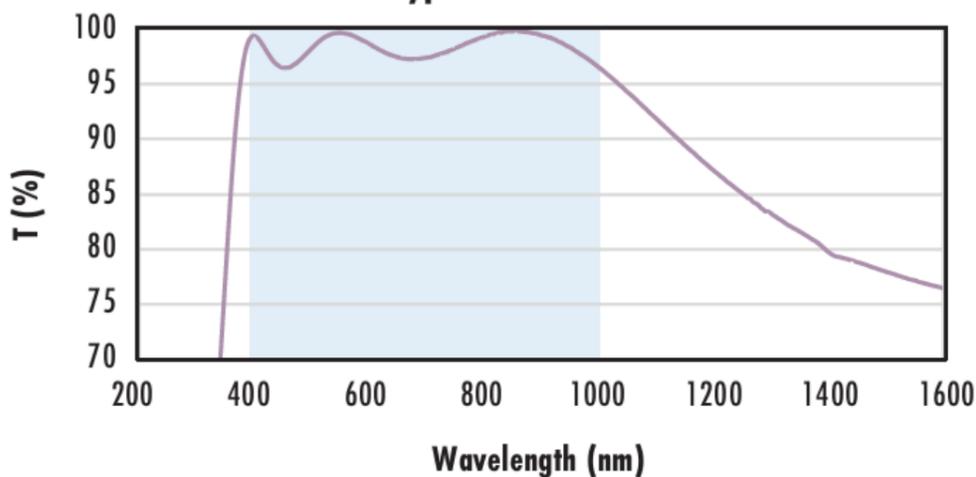
Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.  
The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$  (N-BK7)  
Data outside this range is not guaranteed and is for reference only.  
[Click Here to Download Data](#)

**N-BK7 with VIS-EXT Coating  
Typical Transmission**



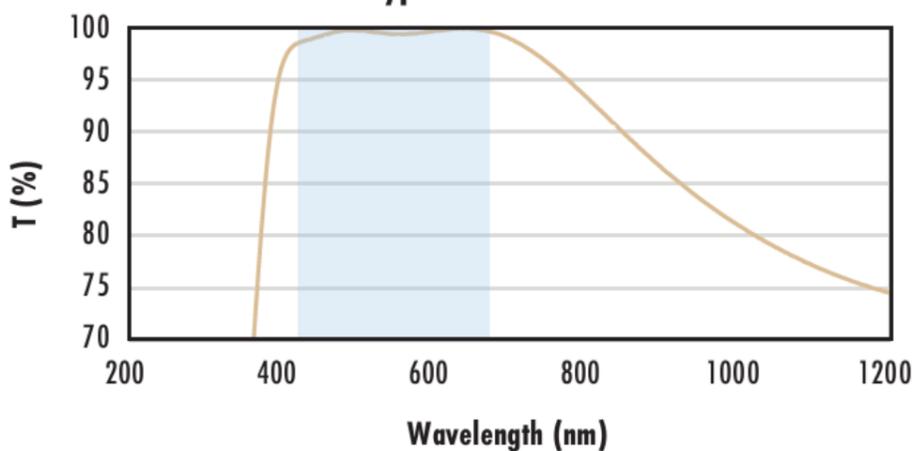
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.  
The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$   
Data outside this range is not guaranteed and is for reference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

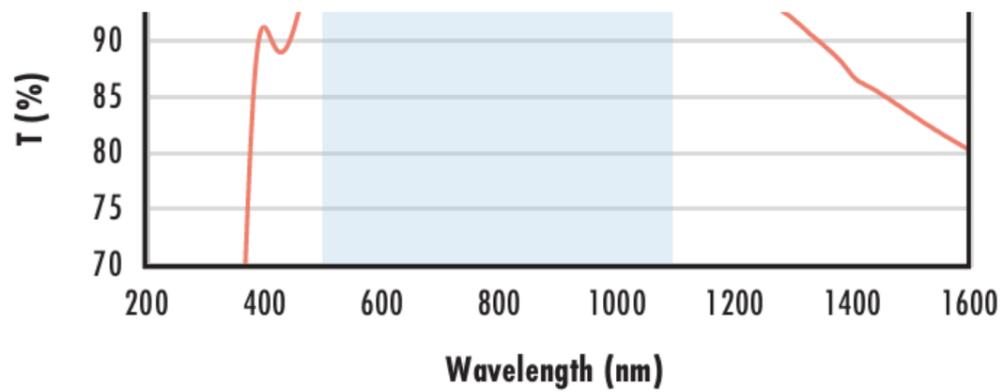


Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.  
The blue shaded region indicates the coating design wavelength range, with the following specification:  
 $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$   
Data outside this range is not guaranteed and is for reference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



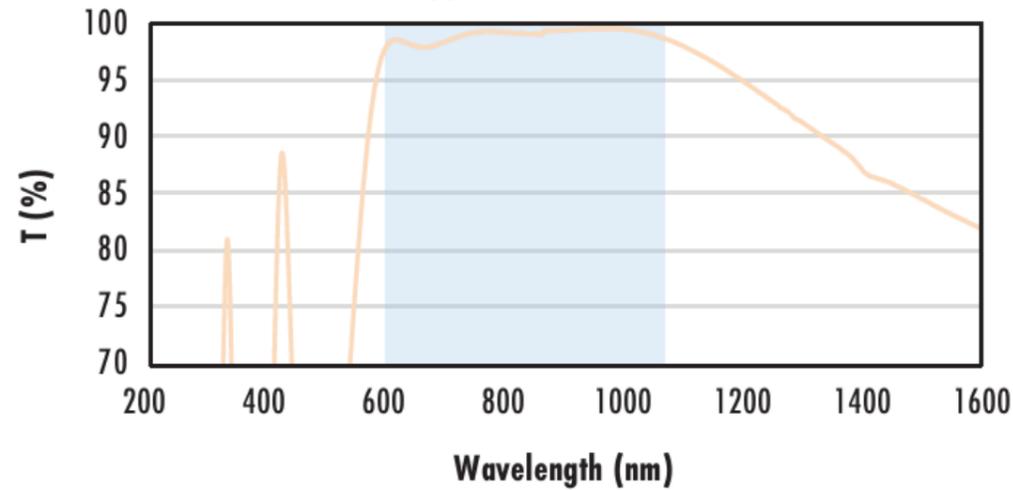
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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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.

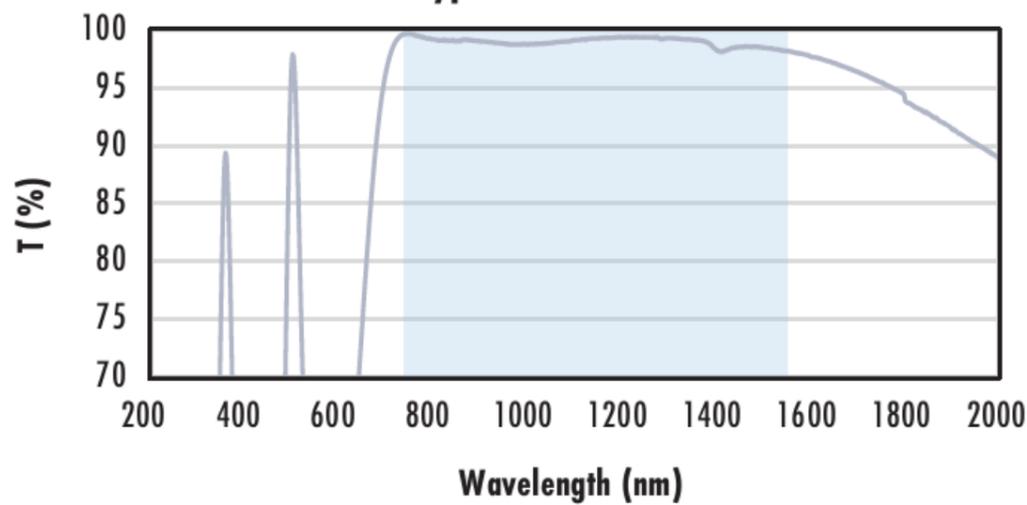
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

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

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## 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