TECHSPEC® **40mm Dia. x 400mm FL YAG-BBAR Coated, Inked, Double-Convex Lens**

YAG-BBAR Coated Double-Convex (DCX) Lenses

Stock **#89-288-INK** CONTACT US

⊖ 1 ⊕   €88.⁰⁰

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Volume Pricing	
Qty 1-9	**€88,00** each
Qty 10-24	**€78,50** each
Qty 25-99	**€69,50** each
Need More?	Request Quote

❶ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	
40.00 ±0.025	
Centering (arcmin):	
<1	
Bevel:	
Protective as needed	
Center Thickness CT (mm):	
8.00	
Center Thickness Tolerance (mm):	
±0.10	
Edge Thickness ET (mm):	
7.03	
Clear Aperture CA (mm):	
39.00	

Optical Properties

Back Focal Length BFL (mm):	
397.35	
Effective Focal Length EFL (mm):	
400.00	
Coating:	
YAG-BBAR (500-1100nm)	
Coating Specification:	
R_{abs} <0.25% @ 532nm R_{abs} <0.25% @ 1064nm R_{avg} <1.0% @ 500 - 1100nm	
Substrate: ⬜	
N-BK7	
Surface Quality:	
40-20	
Radius R_1=-R_2 (mm):	
412.09	
f/#:	
10.00	
Focal Length Specification Wavelength (nm):	
587.6	
Focal Length Tolerance (%):	
±1	
Numerical Aperture NA:	
0.05	
Wavelength Range (nm):	
350 - 2200	

Regulatory Compliance

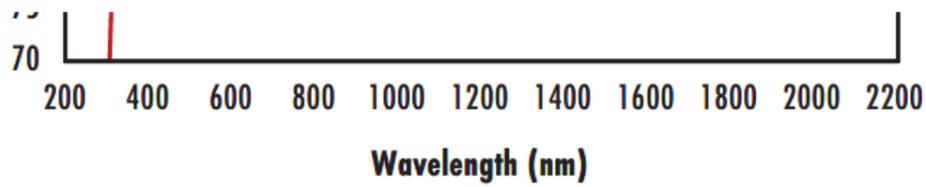|	
Certificate of Conformance:	
View	

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**, **MgF₂**, **VIS 0°**, **NIR I**, **NIR II**, **VIS-EXT**, and **VIS-NIR**
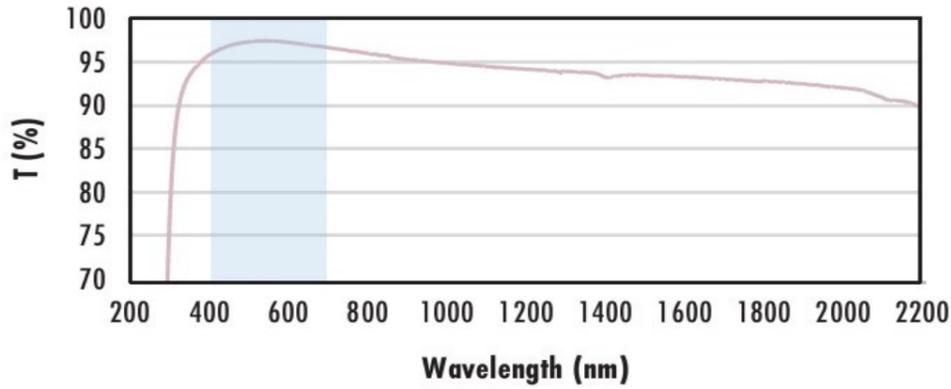
TECHSPEC® YAG-BBAR Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) 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

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
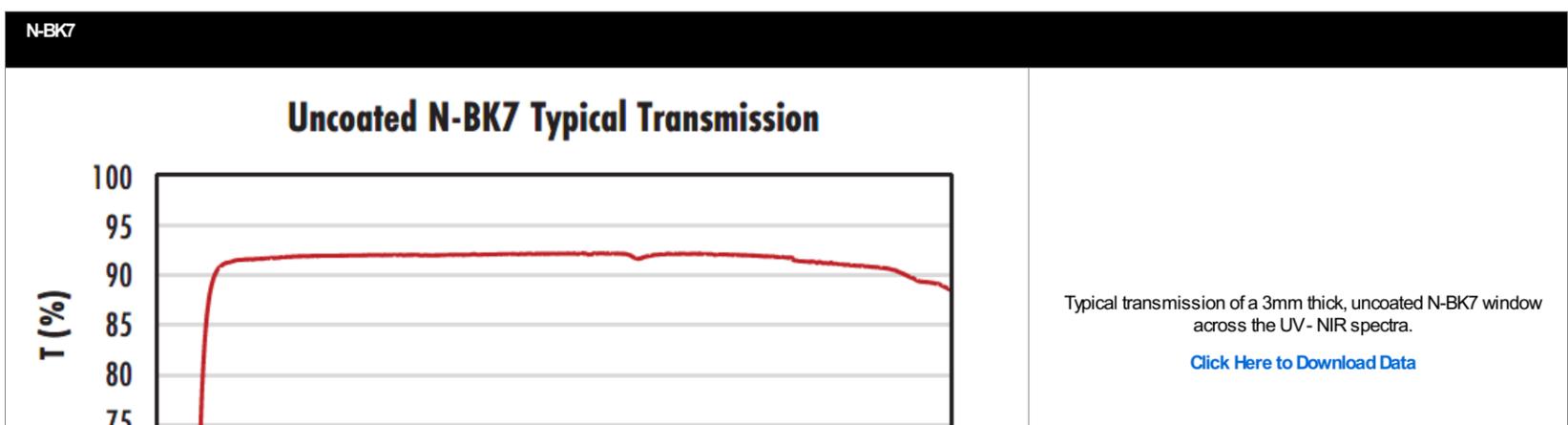
N-BK7 with MgF₂ Coating
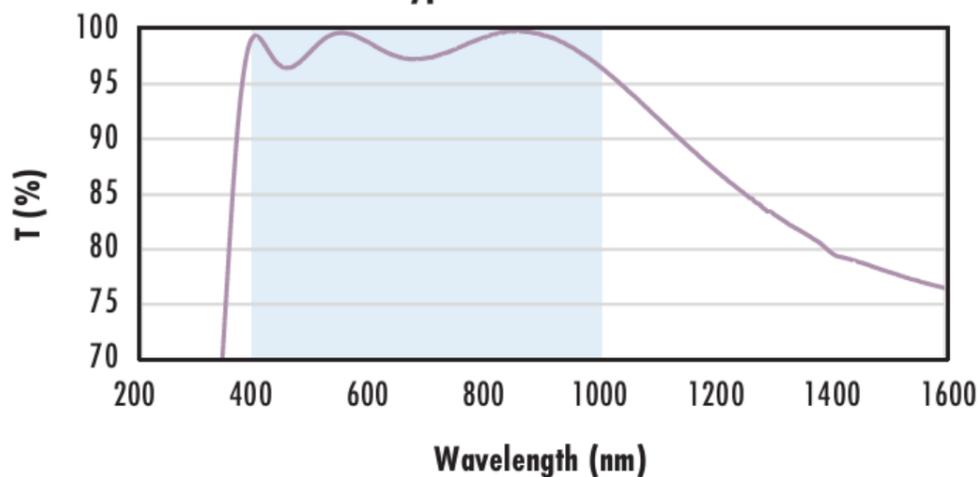### Typical Transmission

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 wavelengh range, with the following specification:

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

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

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N-BK7 with VIS-EXT Coating
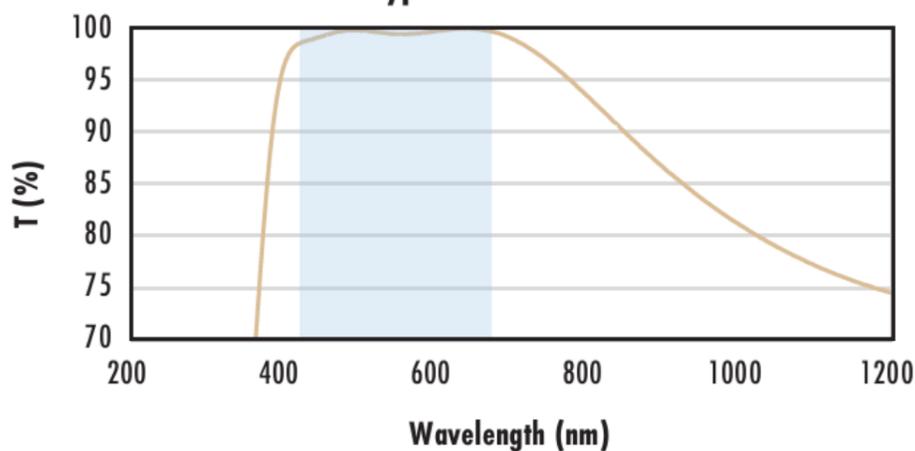### Typical Transmission
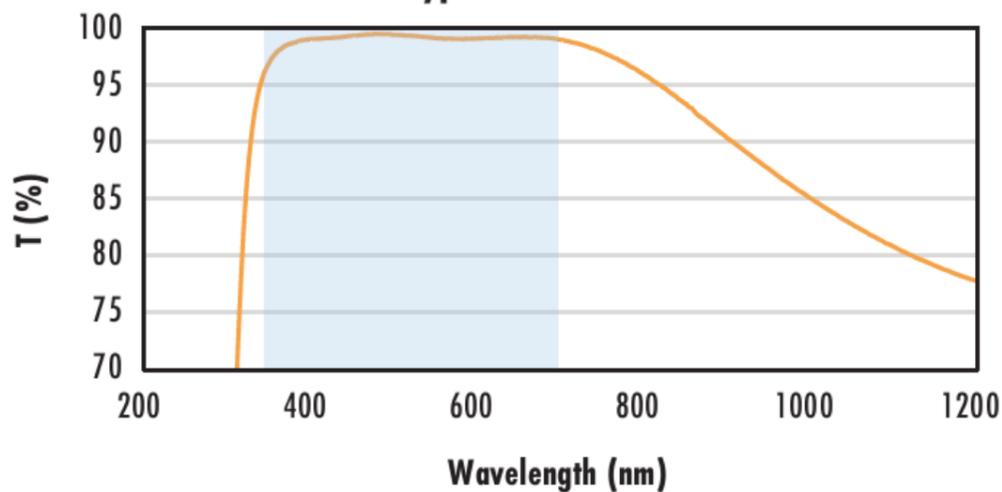
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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 wavelengh range, with the following specification:

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

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

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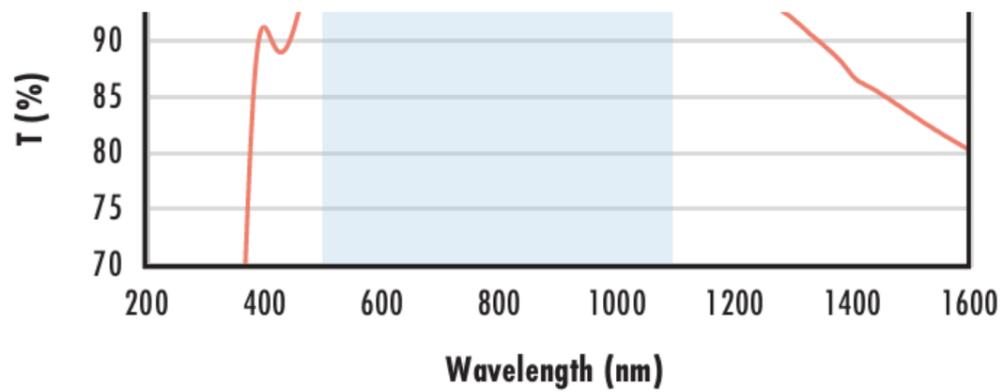## N-BK7 with VIS 0° Coating
Typical Transmission

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 wavelengh range, with the following specification:

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

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.

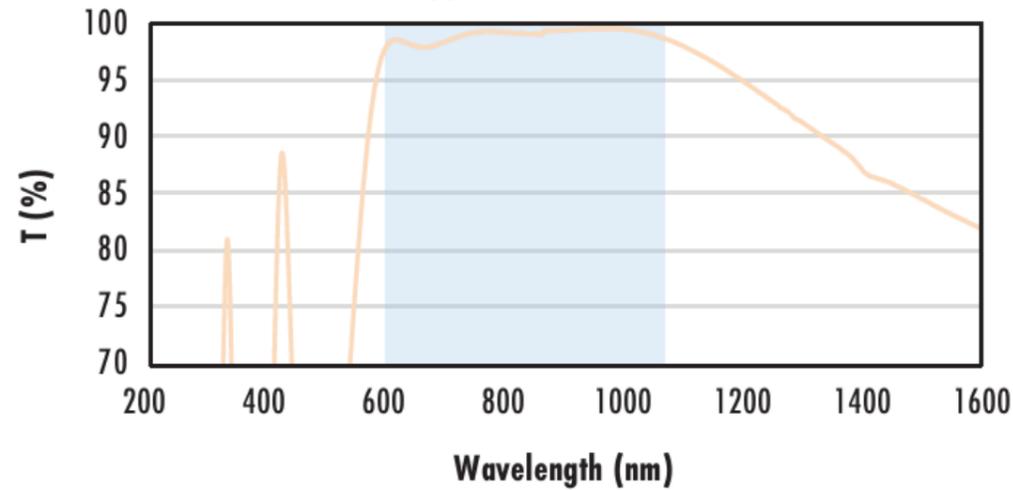The blue shaded region indicates the coating design wavelengh

N-BK7 with NIR I Coating
Typical Transmission

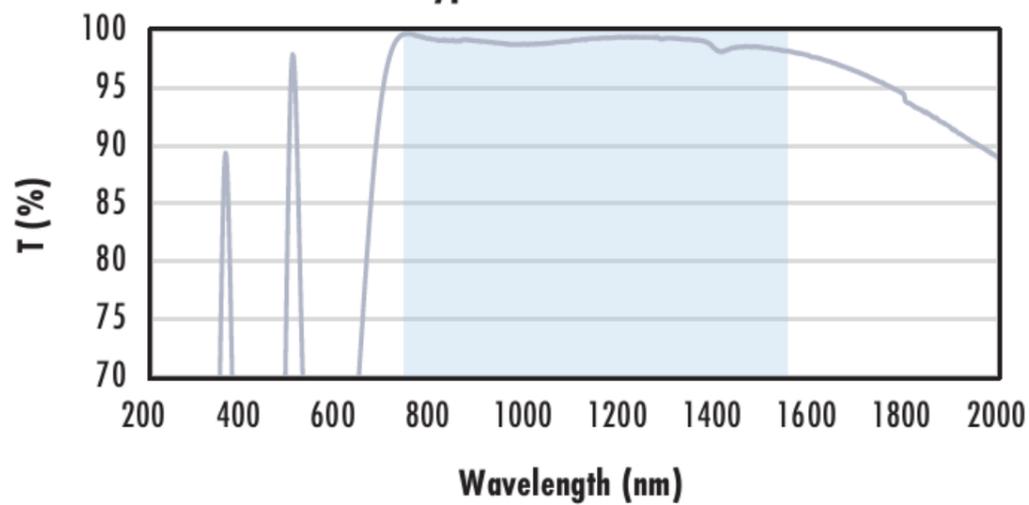Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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 wavelengh 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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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

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Compatible Mounts