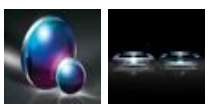
TECHSPEC®

9mm Dia. x 27mm FL YAG-BBAR Coated, Double-Convex Lens

YAG-BBAR Coated Double-Convex (DCX) Lenses



Stock #89-226 CONTACT US Other Coating Options

- 1 +

C$68.60

ADD TO CART

Volume Pricing	
Qty 1-9	C$68.60 each
Qty 10-24	C$61.60 each
Qty 25-99	C$54.95 each
Need More?	Request Quote

Product Downloads

- STEP:stp
- Curve:pdf
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Curve (xslx):xlsx
- Zemax:zar
- Zemax:zmx
- eDrawing:eprt
- Code V:seq
- EO Spec Sheet
- Download All

General

Type:	Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	9.00 +0.0/-0.025	**Centering (arcmin):**	<1
Bevel:	Protective as needed	**Center Thickness CT (mm):**	2.74
Center Thickness Tolerance (mm):	±0.05	**Edge Thickness ET (mm):**	2.00
Clear Aperture CA (mm):	8.1		

Optical Properties

Back Focal Length BFL (mm):	26.08	**Effective Focal Length EFL (mm):**	27.00
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
Power (P-V) @ 632.8nm:	1.5λ	**Irregularity (P-V) @ 632.8nm:**	λ/4
Radius R_1=-R_2 (mm):	27.43	**f/#:**	3.00

Focal Length Specification Wavelength (nm):	587.6	**Focal Length Tolerance (%):**	±1
Numerical Aperture NA:	0.17	**Wavelength Range (nm):**	350 - 2200
Damage Threshold, By Design: ⓘ	5 J/cm^2 @ 532nm, 10ns		

Regulatory Compliance

RoHS 2015:	**Compliant**	**Reach 219:**	**Compliant**
Certificate of Conformance:	**View**		

Need different specs or modifications?

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

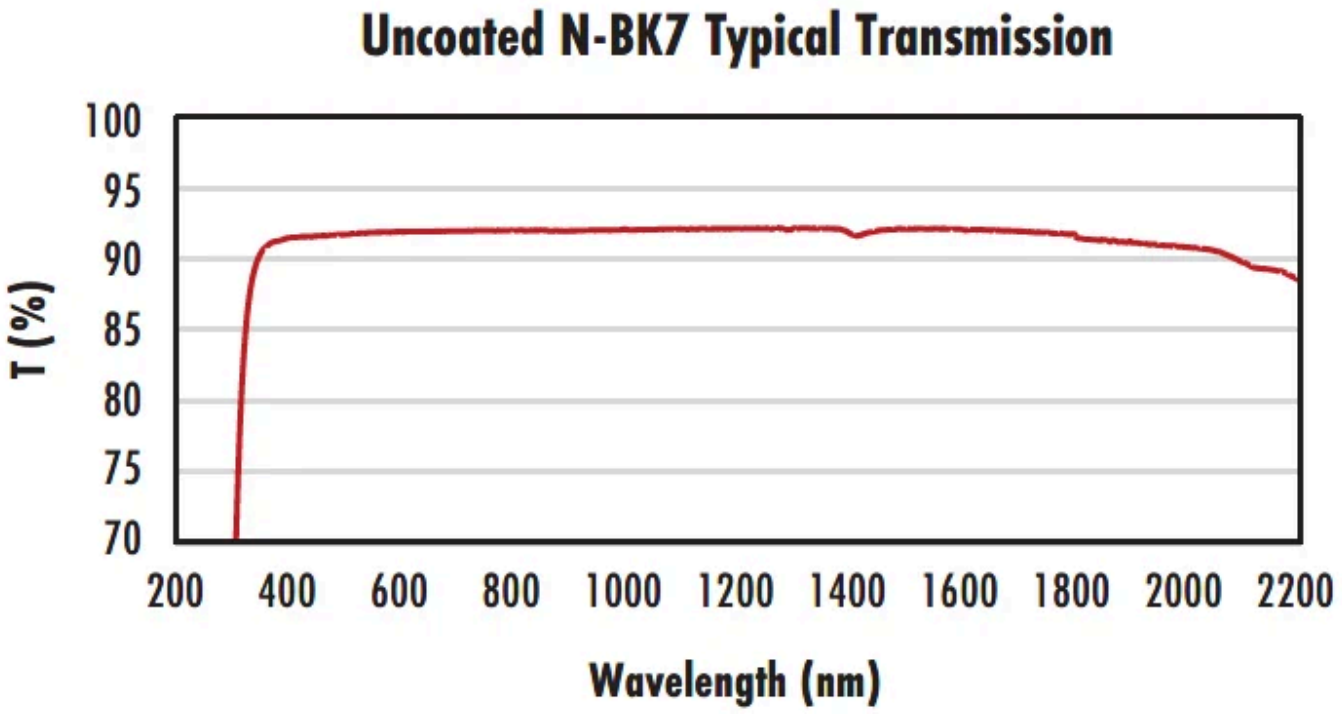
Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**

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$_2$**, **VIS 0°**, **NIR I**, **NIR II**, **VIS-EXT**, and **VIS-NIR**

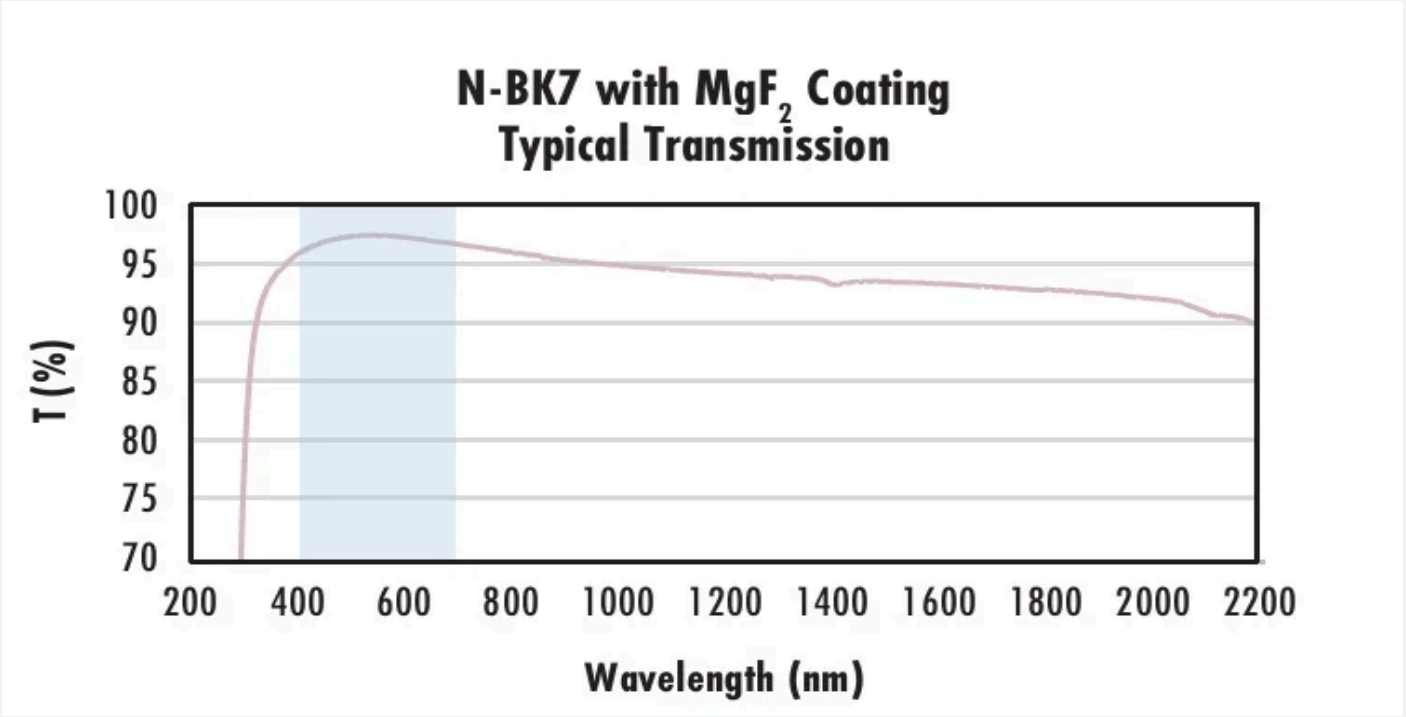
TECHSPEC® YAG-BBAR Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance)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



Typical transmission of a 3mm thick, uncoated N-BK
window across the UV - NIR spectra.

Click Here to Download Data



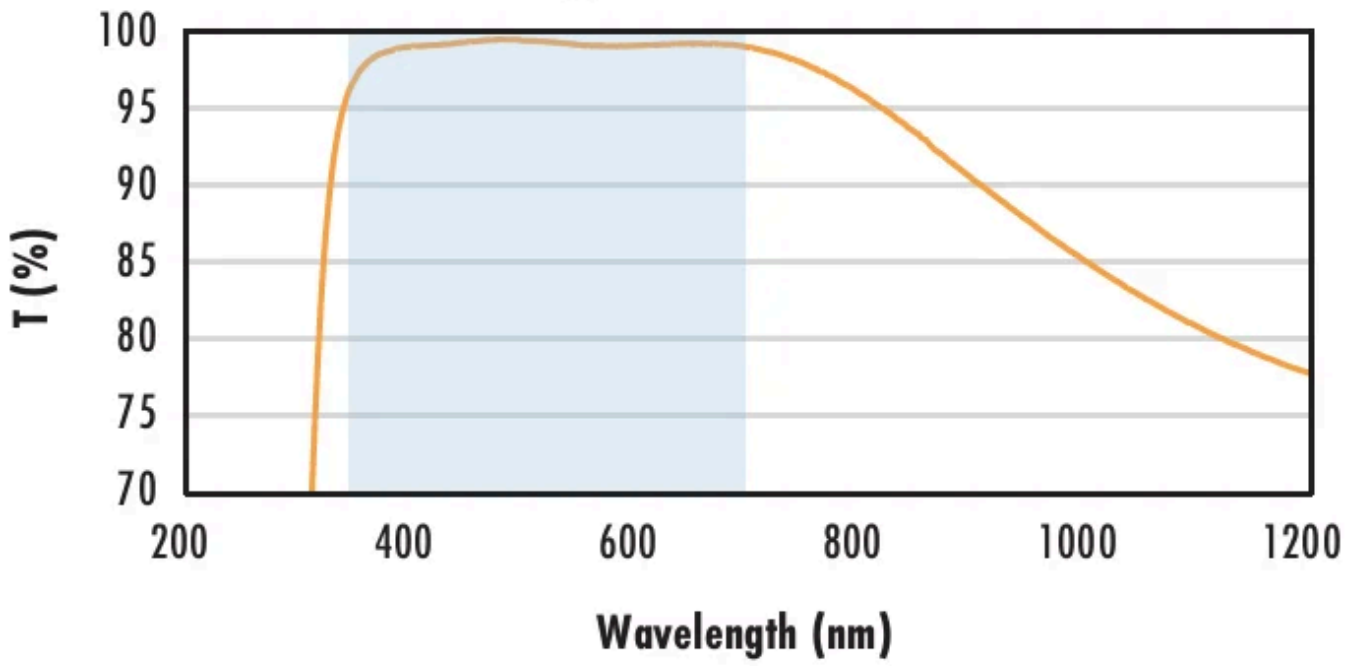
Typical transmission of a 3mm thick N-BK7 window w MgF2 (400-700nm) coating at 0° AOI.

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

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

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

Click Here to Download Data



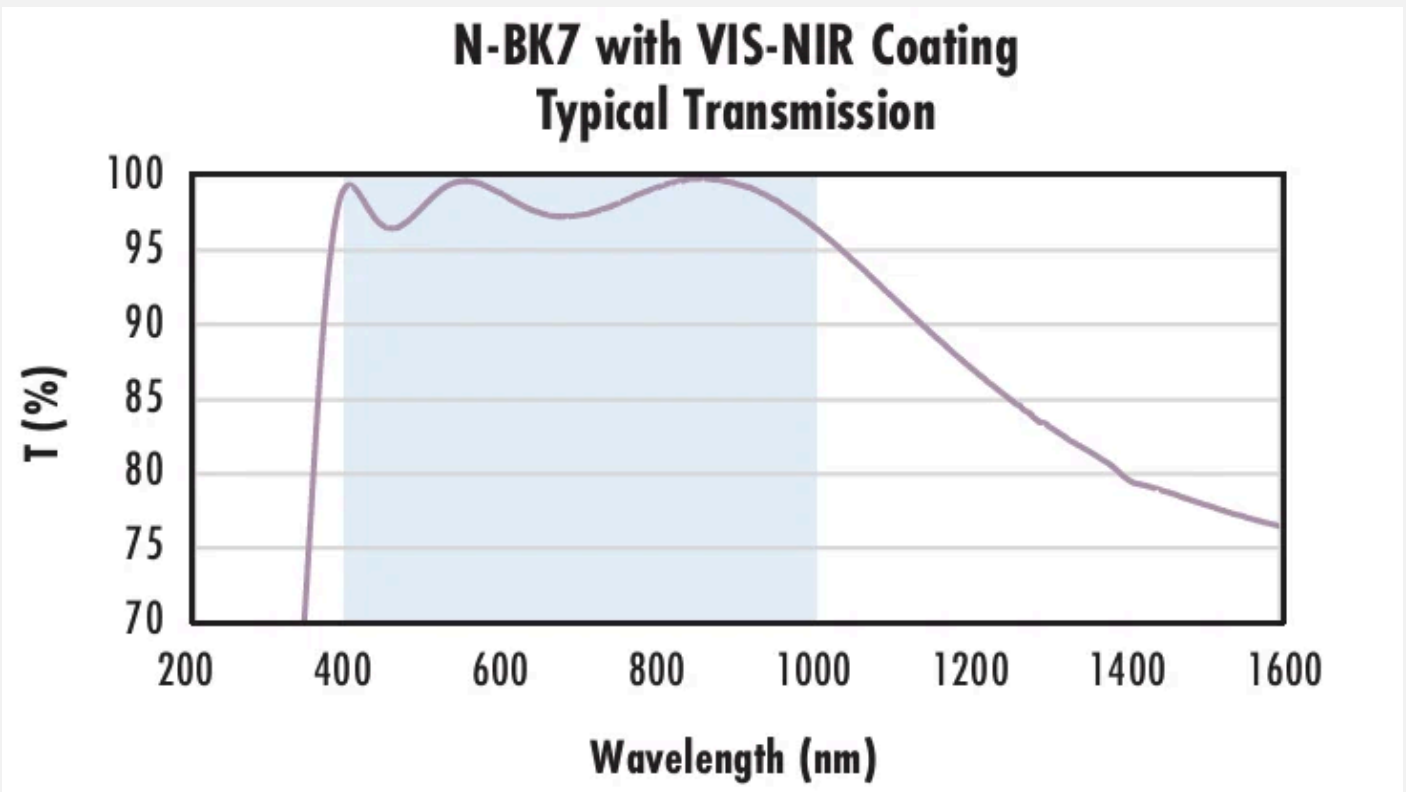
Typical transmission of a 3mm thick N-BK7 window w VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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

Click Here to Download Data



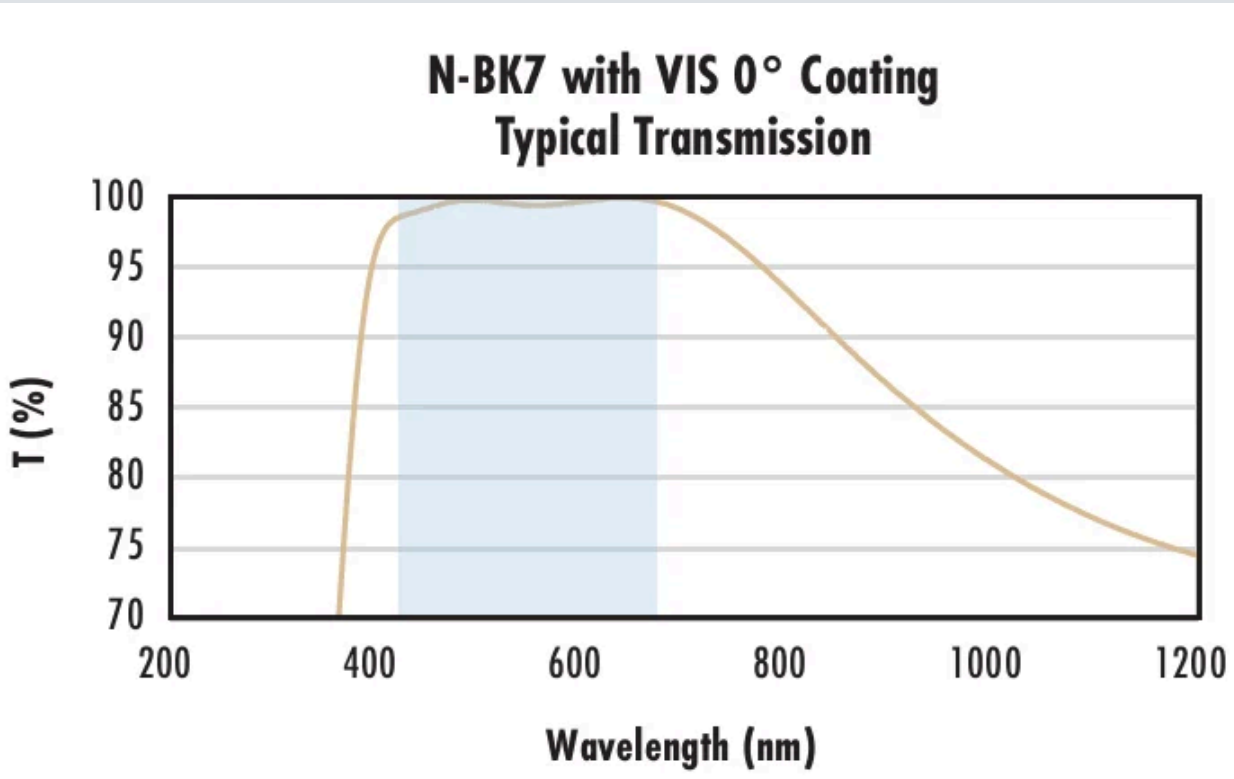
Typical transmission of a 3mm thick N-BK7 window w VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating desig 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 fo reference only.

Click Here to Download Data



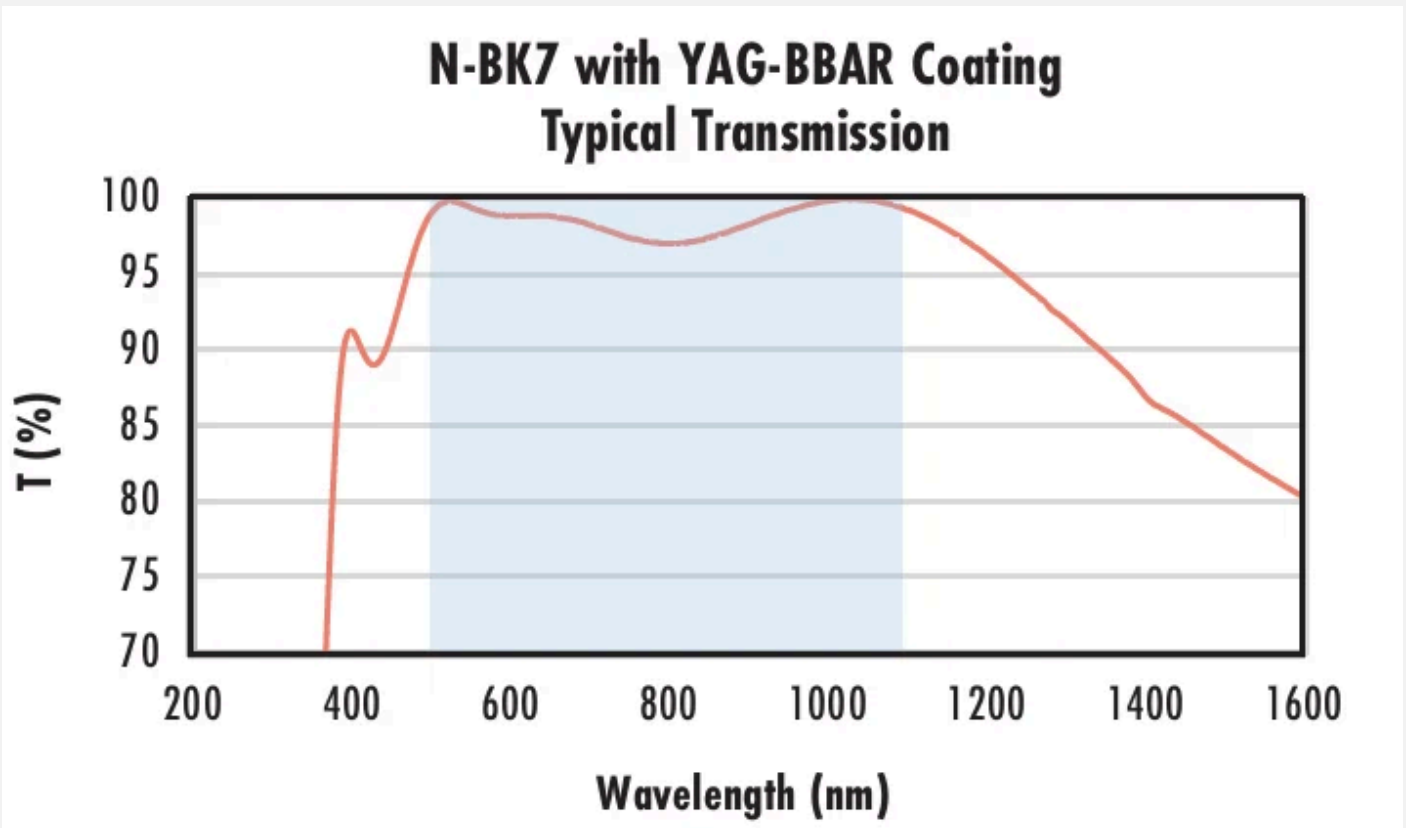
Typical transmission of a 3mm thick N-BK7 window wit 0° (425-675nm) coating at 0° AOI.

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

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

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

Click Here to Download Data



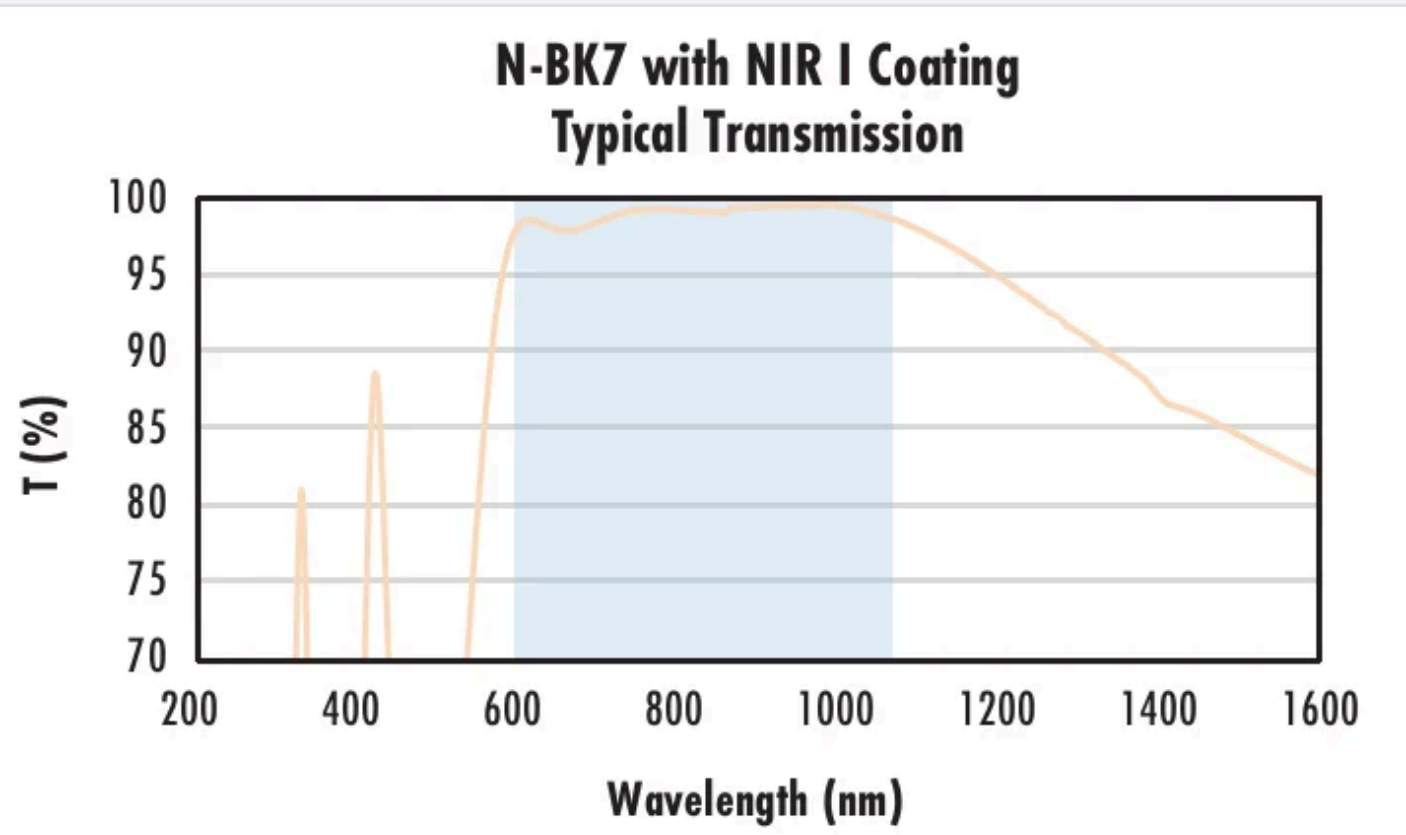
Typical transmission of a 3mm thick N-BK7 window w YAG-BBAR (500-1100nm) coating at 0° AOI.

The blue shaded region indicates the coating desig wavelengh 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 fo reference only.

Click Here to Download Data



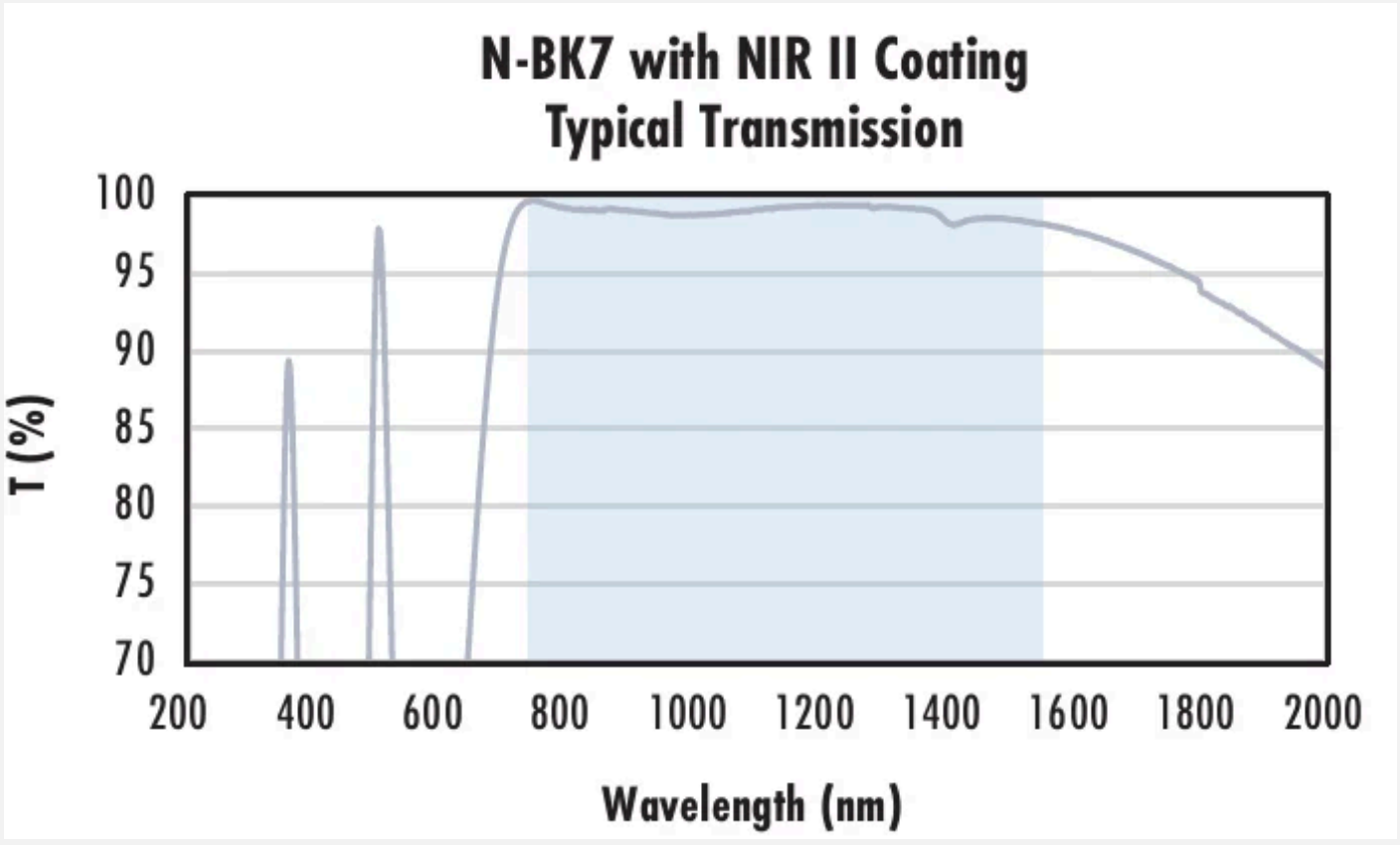
Typical transmission of a 3mm thick N-BK7 window witl I (600 - 1050nm) coating at 0° AOI.

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

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

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

Click Here to Download Data



Typical transmission of a 3mm thick N-BK7 window witl
II (750 - 1550nm) coating at 0° AOI.

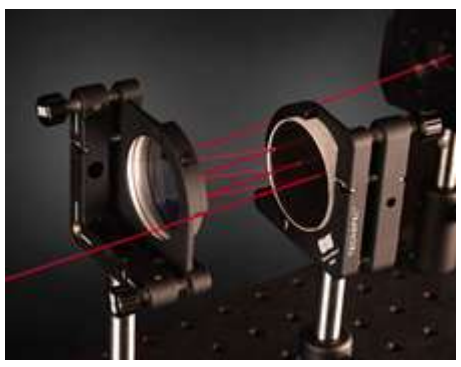
The blue shaded region indicates the coating desig
wavelengh range, with the following specification:

R_{abs} ≤ 1.5% @ 750 - 800nm
R_{abs} ≤ 1.0% @ 800 - 1550nm
R_{avg} ≤ 0.7% @ 750 - 1550nm

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

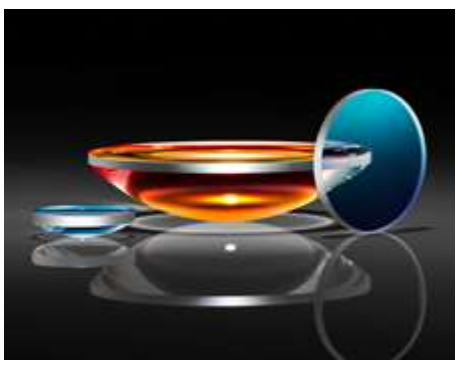
Click Here to Download Data

Related Products

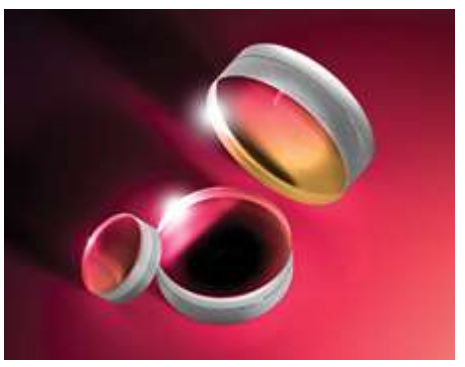


Laser Optics

YAG-BBAR Coated Plano-Convex (PCX) Lenses



UV Fused Silica Plano-Convex (PCX) Lenses - YAG-BBAR Coated



YAG-BBAR Coated Achromatic Lenses

Frequently Purchased Together

#88-814 - 9.0mm Dia. x 22.0mm FL, YAG-BBAR Coated Plano-Convex Lens
C$64.75

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price ☐	Buy
MORE+ 	9.0mm Optic Dia., Optic Mount	Fixed		#64-553	C$45.85 Request Quote	8 In Stock 1

	Title	Type	Compare	Stock Number	Price ☐	Buy
MORE+ 	9mm Inner Single Optic Mount	Fixed		#38-747	C$57.40 Request Quote	5 In Stock 1

Check out our full selection of mounts **here**.

Resources

Media Type

- ☐ Application Note
- ☐ Technical Tool
- ☐ Trending in Optics
- ☐ FAQ
- ☐ Glossary
- ☐ Video

APPLICATION NOTE
Anti-Reflection (AR) Coatings

APPLICATION NOTE
An Introduction to Optical Coatings

APPLICATION NOTE
Understanding Optical Specifications

APPLICATION NOTE
Lens Geometry Performance Comparison

TECHNICAL TOOL
SAG Calculator

TRENDING IN OPTICS
Future of Spherical Lenses

View More

;