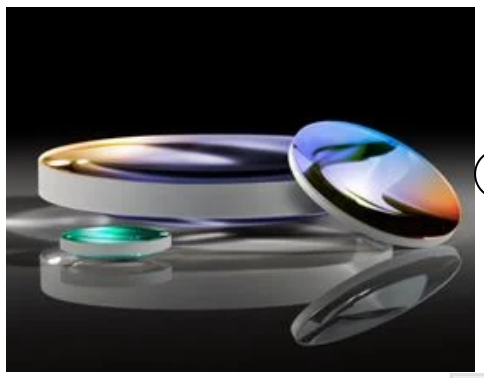
TECHSPEC®

12.0mm Dia. x 50mm FL, YAG-BBAR Coated, Plano-Convex Lens



YAG-BBAR Coated Plano-Convex (PCX) Lenses

Stock #38-577 **4 In Stock**

Other Coating Options

- 1 +

£40.00

ADD TO CART

Volume Pricing	
Qty 1-9	£40.00 each
Qty 10-24	£35.80 each
Qty 25-49	£32.00 each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads

- STEP:step
- 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
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General

Type:	Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	12.00 +0.0/-0.025	**Centering (arcmin):**	<1
Center Thickness CT (mm):	1.90 ±0.05	**Edge Thickness ET (mm):**	1.19
Clear Aperture CA (mm):	11	**Bevel:**	Protective as needed

Optical Properties

Effective Focal Length EFL (mm):	50.00 @ 587.6nm	**Back Focal Length BFL (mm):**	48.75
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
Focal Length Tolerance (%):	±1	**Radius R_1 (mm):**	25.84

f/#:	4.17	**Numerical Aperture NA:**	0.12
Wavelength Range (nm):	500 - 1100	**Damage Threshold, By Design:** ⓘ	5 J/cm^2 @ 532nm, 10ns

Regulatory Compliance

RoHS 2015:	**Compliant**	**Certificate of Conformance:**	**View**
Reach 235:	**Compliant**		

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

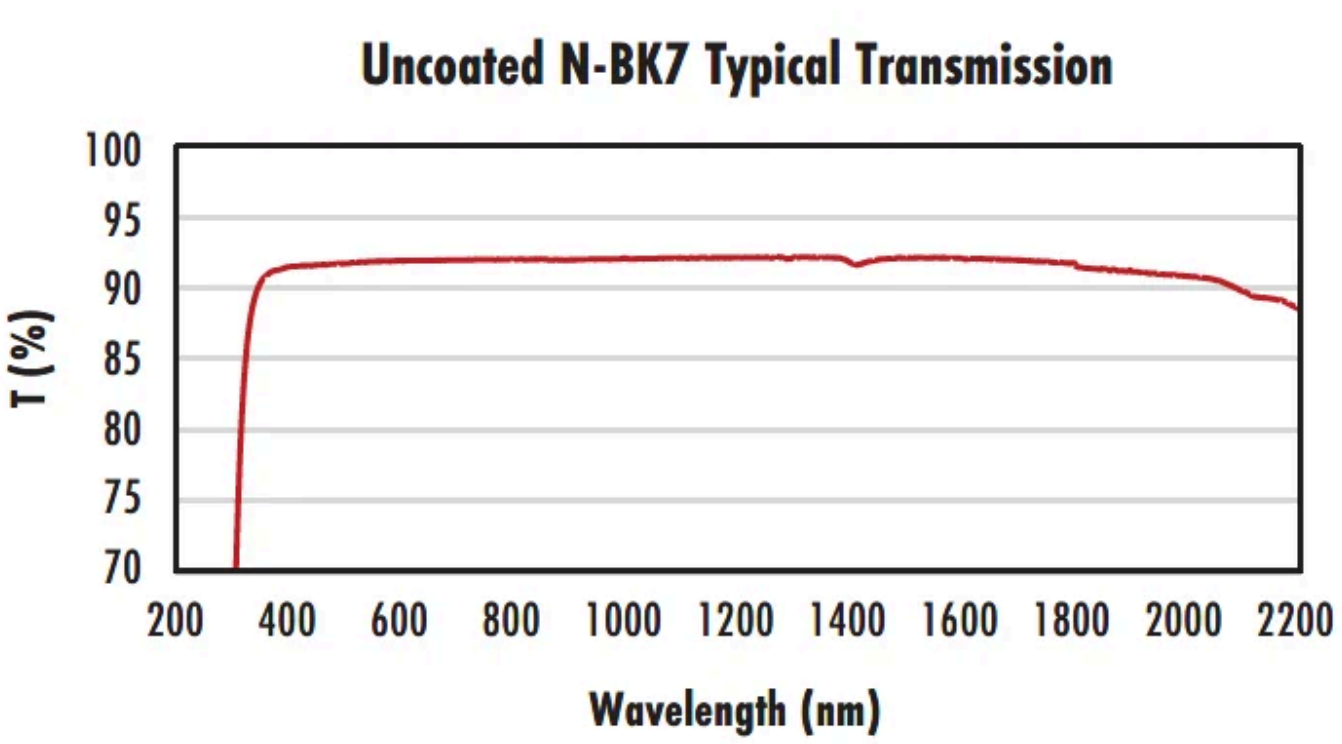
Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**

Product Details

- Optimized for R<0.25% @ Both 532nm and 1064nm
- AR Coated to Provide <1.0% Reflectance per Surface for 500 - 1100nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: **Uncoated**, **MgF_2**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, and **VIS-EXT**

TECHSPEC® YAG-BBAR Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® YAG-BBAR Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered **uncoated** or with broadband anti-reflective (BBAR) coatings, which include **MgF2**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, and **VIS-EXT**.

Technical Information



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

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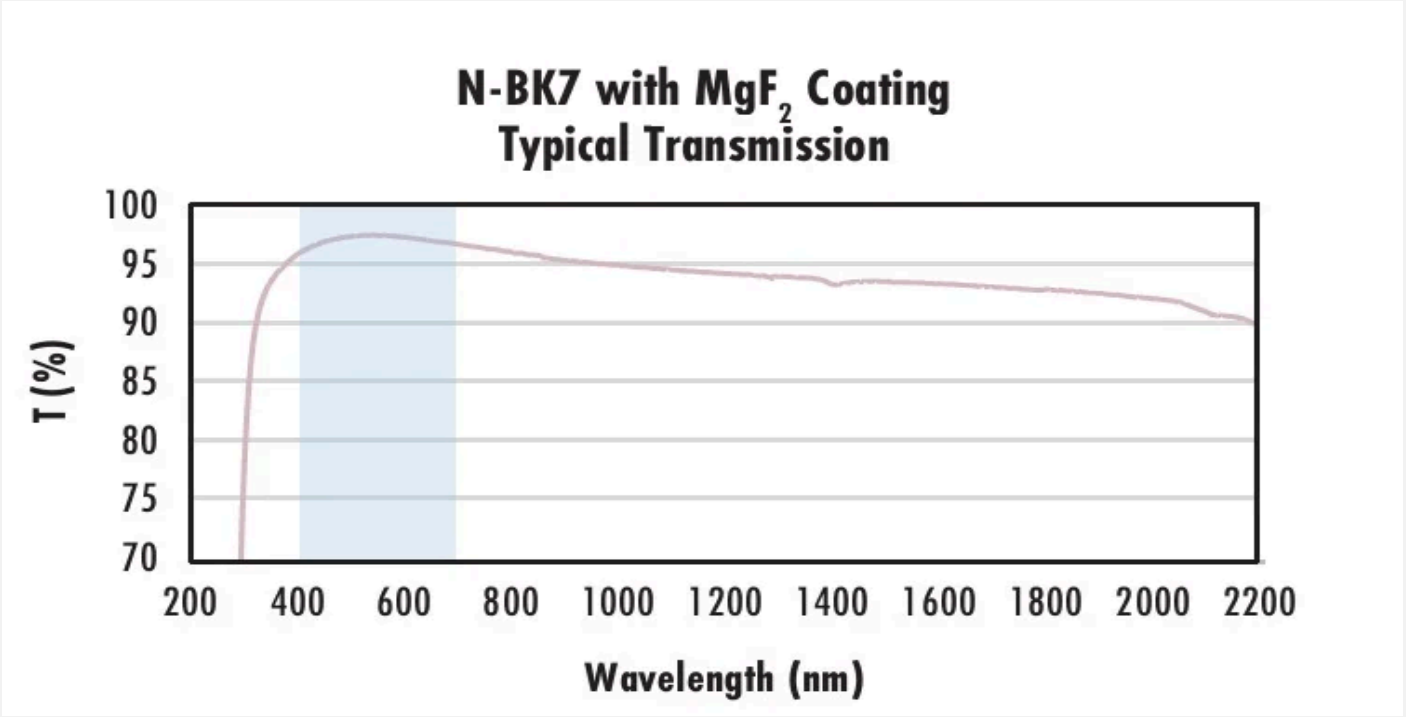

Typical transmission of a 3mm thick N-BK7 window w MgF2 (400-700nm) coating at 0° AOI.

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.

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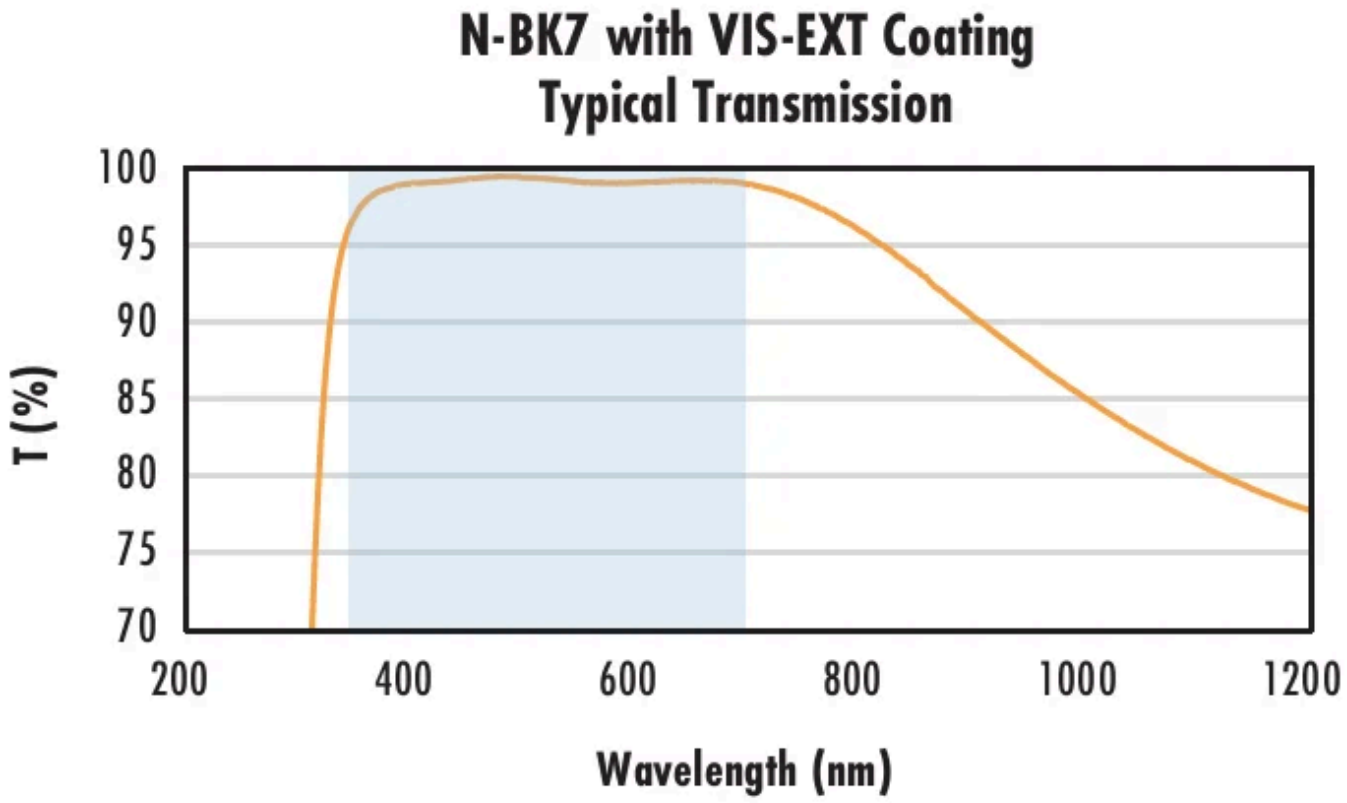

Typical transmission of a 3mm thick N-BK7 window w VIS-EXT (350-700nm) coating at 0° AOI.

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.

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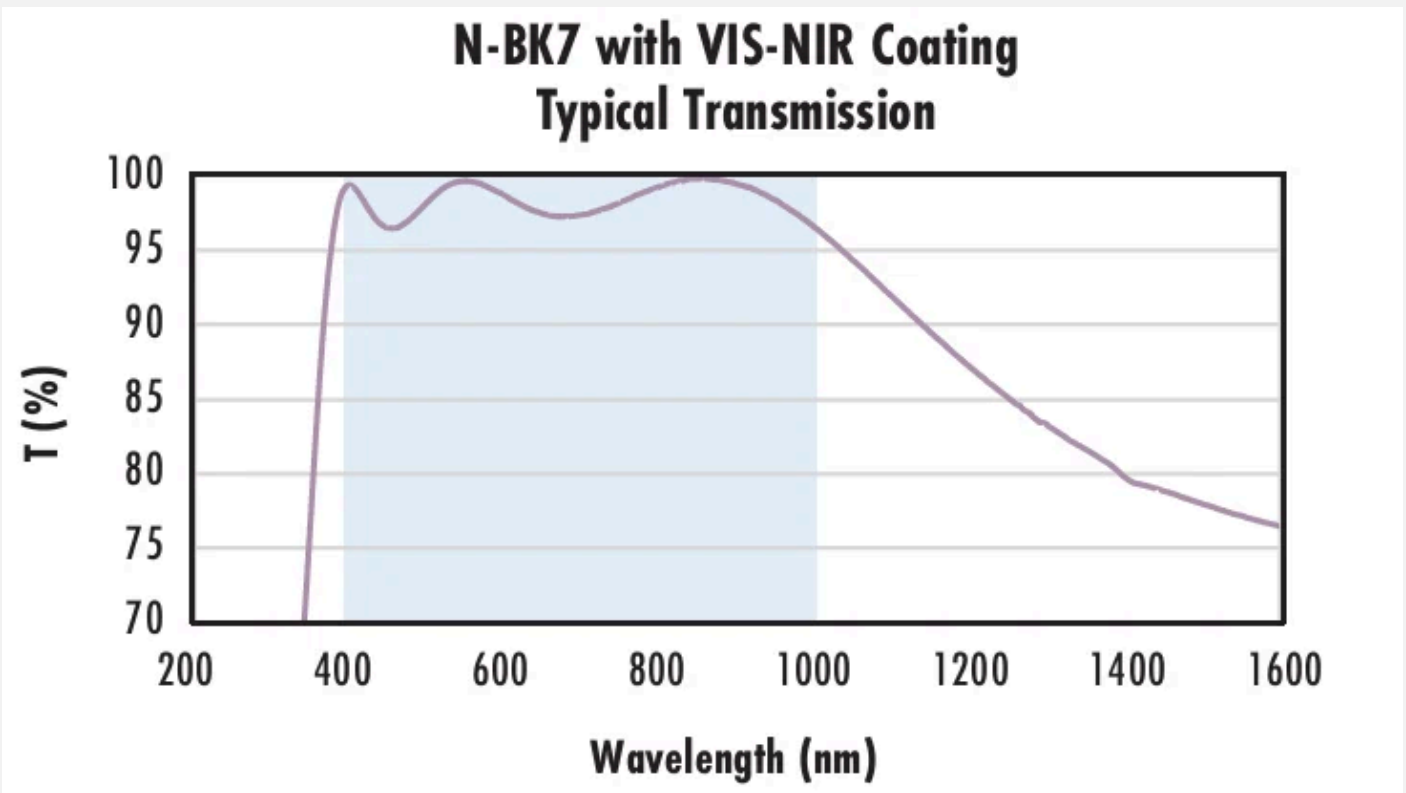

Typical transmission of a 3mm thick N-BK7 window w VIS-NIR (400-1000nm) coating at 0° AOI.

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.

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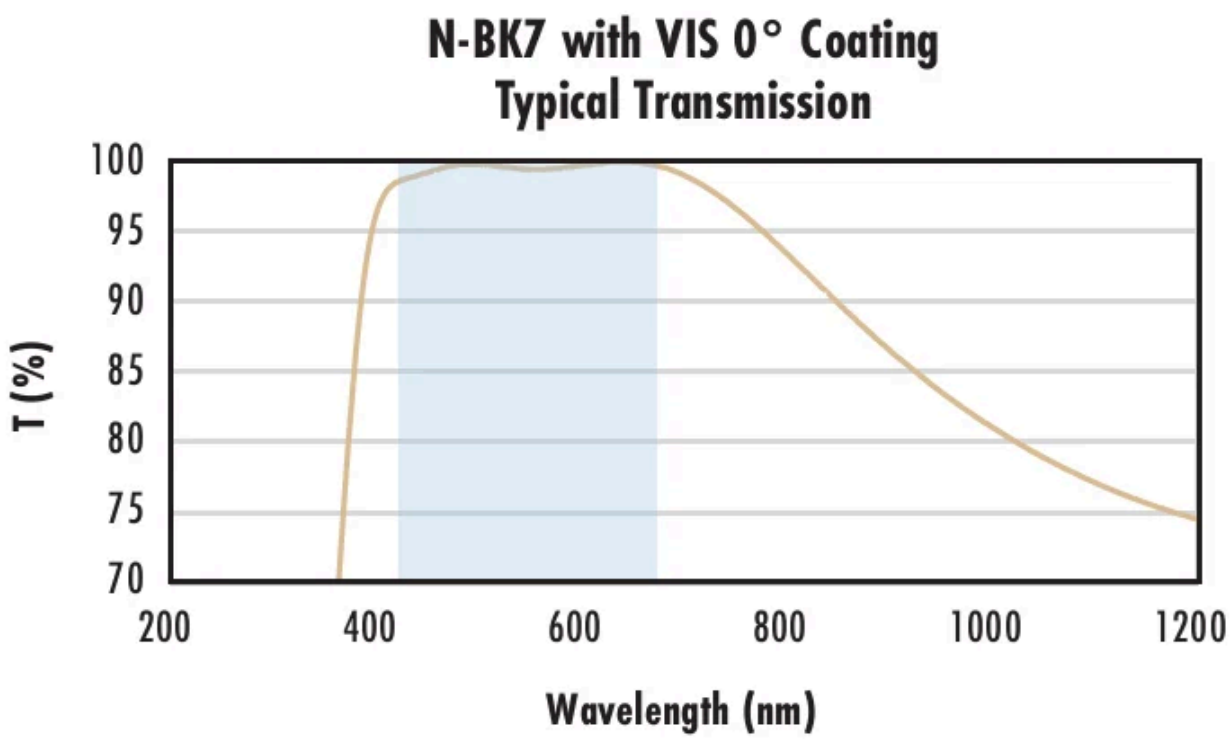

Typical transmission of a 3mm thick N-BK7 window wit 0° (425-675nm) coating at 0° AOI.

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.

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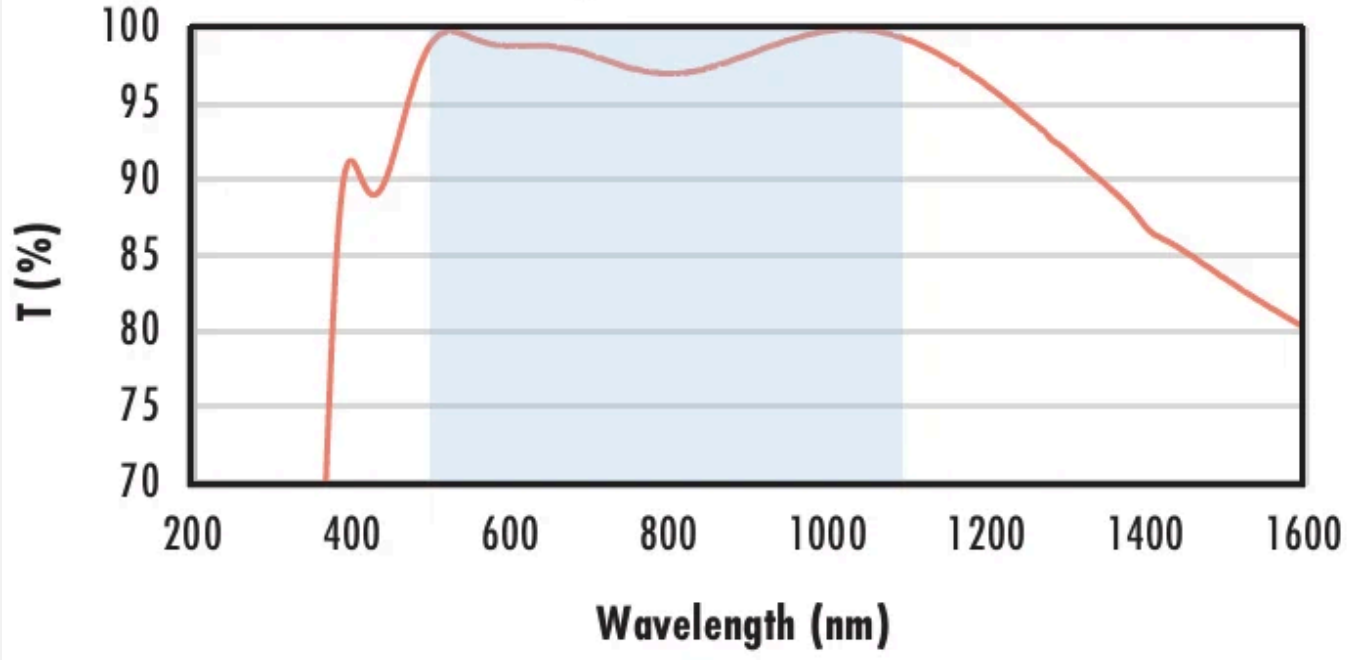

Typical transmission of a 3mm thick N-BK7 window w YAG-BBAR (500-1100nm) coating at 0° AOI.

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.

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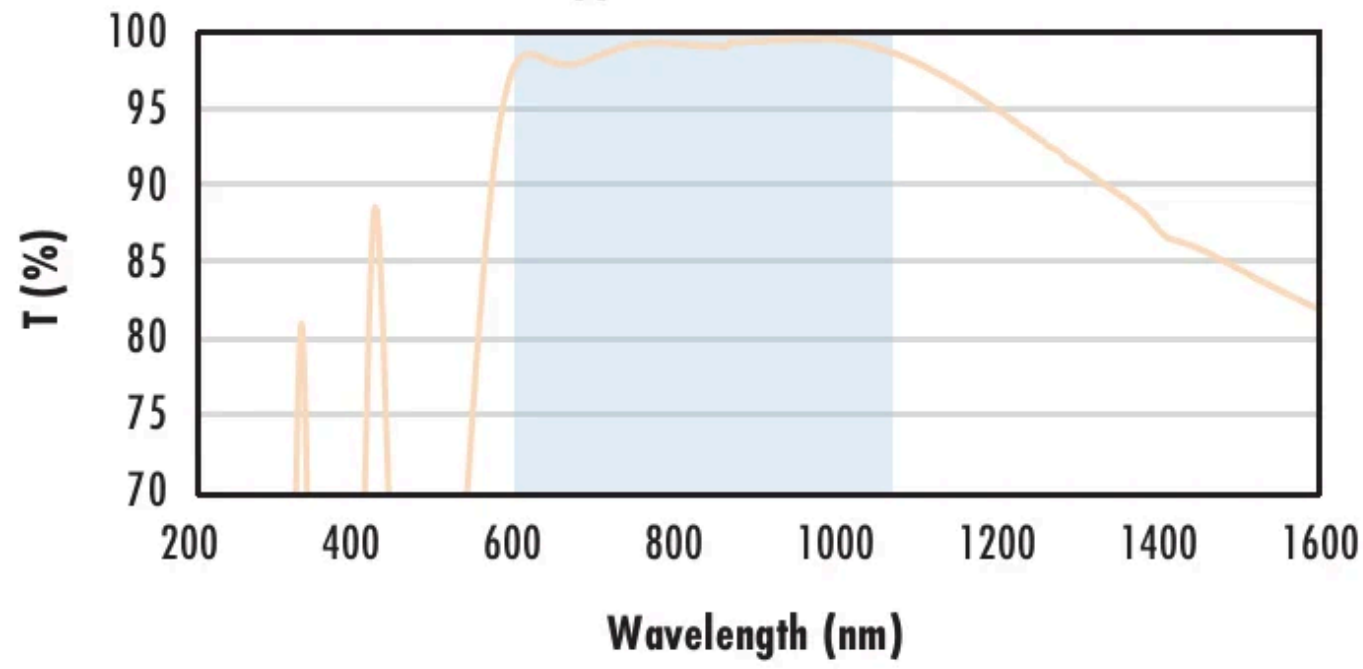

Typical transmission of a 3mm thick N-BK7 window witl I (600 - 1050nm) coating at 0° AOI.

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.

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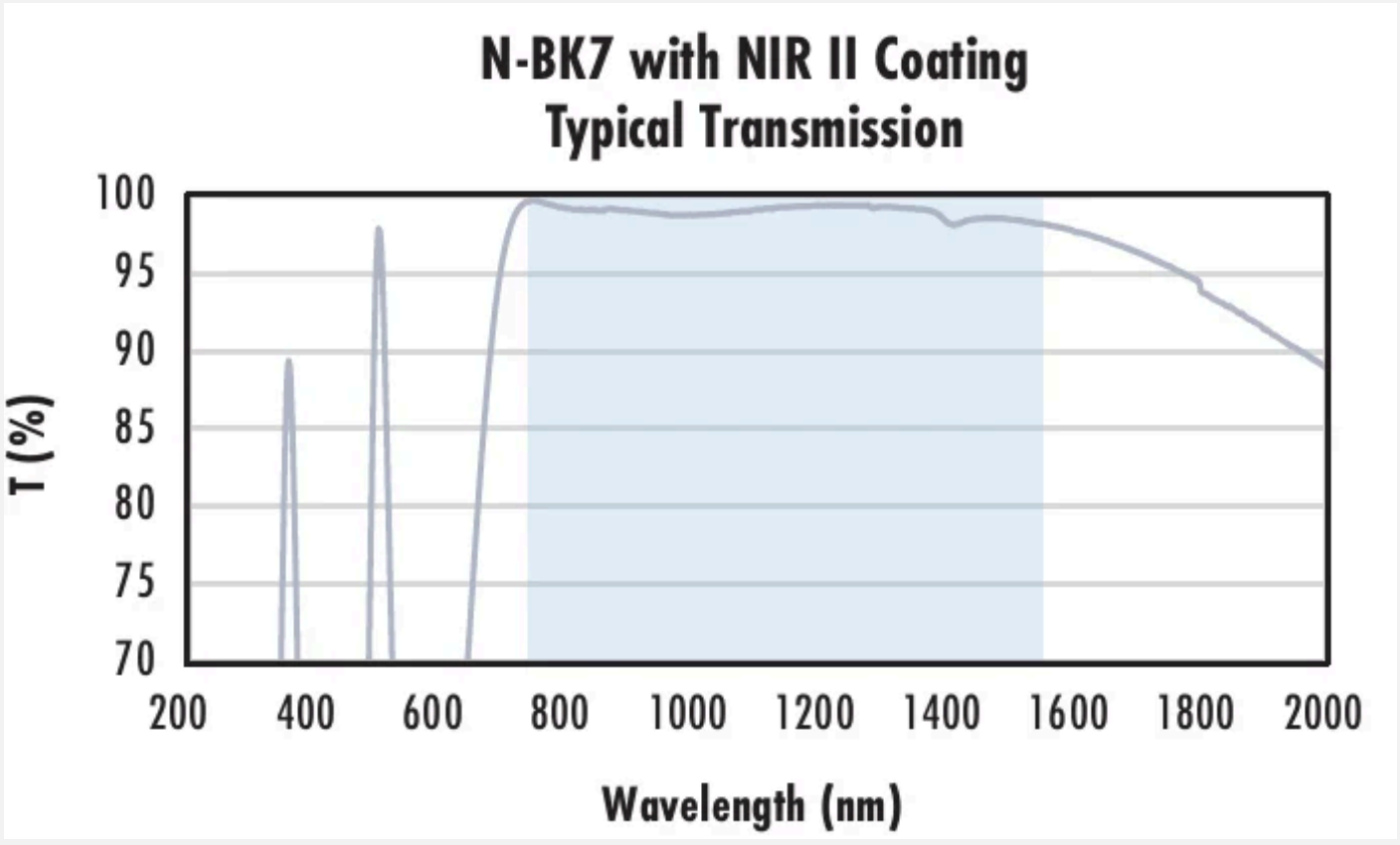

Typical transmission of a 3mm thick N-BK7 window witl
II (750 - 1550nm) coating at 0° AOI.

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.

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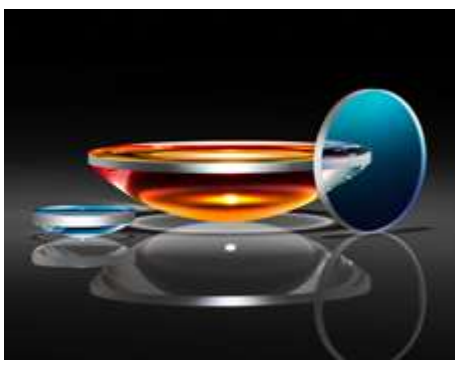
Related Products

Optical Lenses



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

Laser Lenses

YAG-BBAR Coated Double-Convex (DCX) Lenses

Frequently Purchased Together

#65-542 - 12.0mm Diameter x 48.0mm FL, 1064nm V-Coat, PCX Lens
£42.40
Qty

#69-623 - 25.0mm Diameter x 175.0mm FL, 1064nm V-Coat, PCX Lens
£47.20
Qty

#88-792 - 5.0mm Dia. x 15.0mm FL, YAG-BBAR Coated Plano-Convex Lens
£44.40
Qty

#88-840 - 12.0mm Dia. x 60.0mm FL, YAG-BBAR Coated Plano-Convex Lens
£40.00
Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price ☐	Buy
MORE+ 	12.0mm Optic Dia., Optic Mount	Fixed		#64-555	£26.20 Request Quote	10 In Stock 1

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

Resources

Media Type

- [ ] Application Note
- [ ] Technical Tool
- [ ] Trending in Optics
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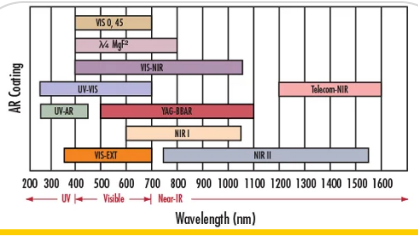
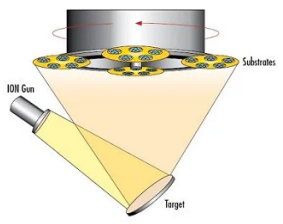


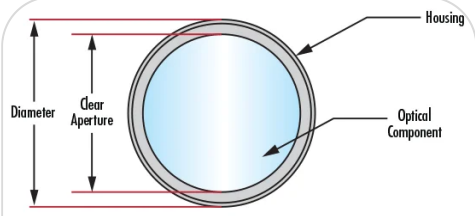
APPLICATION NOTE

Anti-Reflection (AR) Coatings



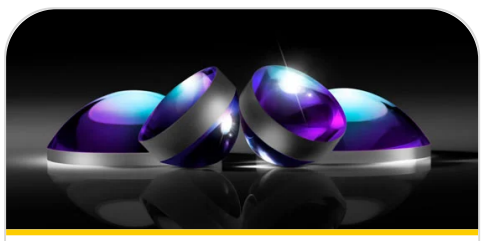
APPLICATION NOTE

An Introduction to Optical Coatings



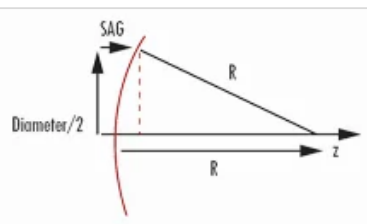
APPLICATION NOTE

Understanding Optical Specifications



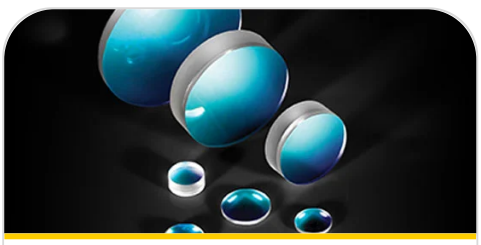
APPLICATION NOTE

Lens Geometry Performance Comparison



TECHNICAL TOOL

SAG Calculator



TRENDING IN OPTICS

Future of Spherical Lenses

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