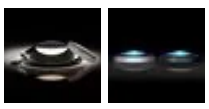
TECHSPEC®

20.0mm Dia. x 50.0mm FL, NIR I Coated, Plano-Convex Lens



Stock #48-760 20+ In Stock

Other Coating Options

- 1 +

MRP ₹4,792

Price inclusive of all taxes

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Volume Pricing	
Qty 1-9	₹4,792 each
Qty 10-24	₹4,288 each
Qty 25-49	₹3,834 each
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Product Downloads

- STEP:stp
- Curve:pdf
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Curve (xslx)
- 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):	20.00 +0.0/-0.025	**Centering (arcmin):**	<1
Center Thickness CT (mm):	3.23 ±0.10	**Edge Thickness ET (mm):**	1.22
Clear Aperture CA (mm):	19	**Bevel:**	Protective as needed

Optical Properties

Effective Focal Length EFL (mm):	50.00 @ 587.6nm	**Back Focal Length BFL (mm):**	47.87
Coating:	NIR I (600-1050nm)	**Coating Specification:**	R_{avg} ≤0.5% @ 600 - 1050nm
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/#:	2.5	**Numerical Aperture NA:**	0.20
Wavelength Range (nm):	600 - 1050	**Damage Threshold, By Design:** ⓘ	7 J/cm^2 @ 1064nm, 10ns

Regulatory Compliance

RoHS 2015:	**Compliant**	**Certificate of Conformance:**	**View**
Reach 235:	**Compliant**		
Country of Origin:	Japan	**Imported By:**	Edmund Optics India Private Limited 267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038 Phone: +91-80-6845 0000

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

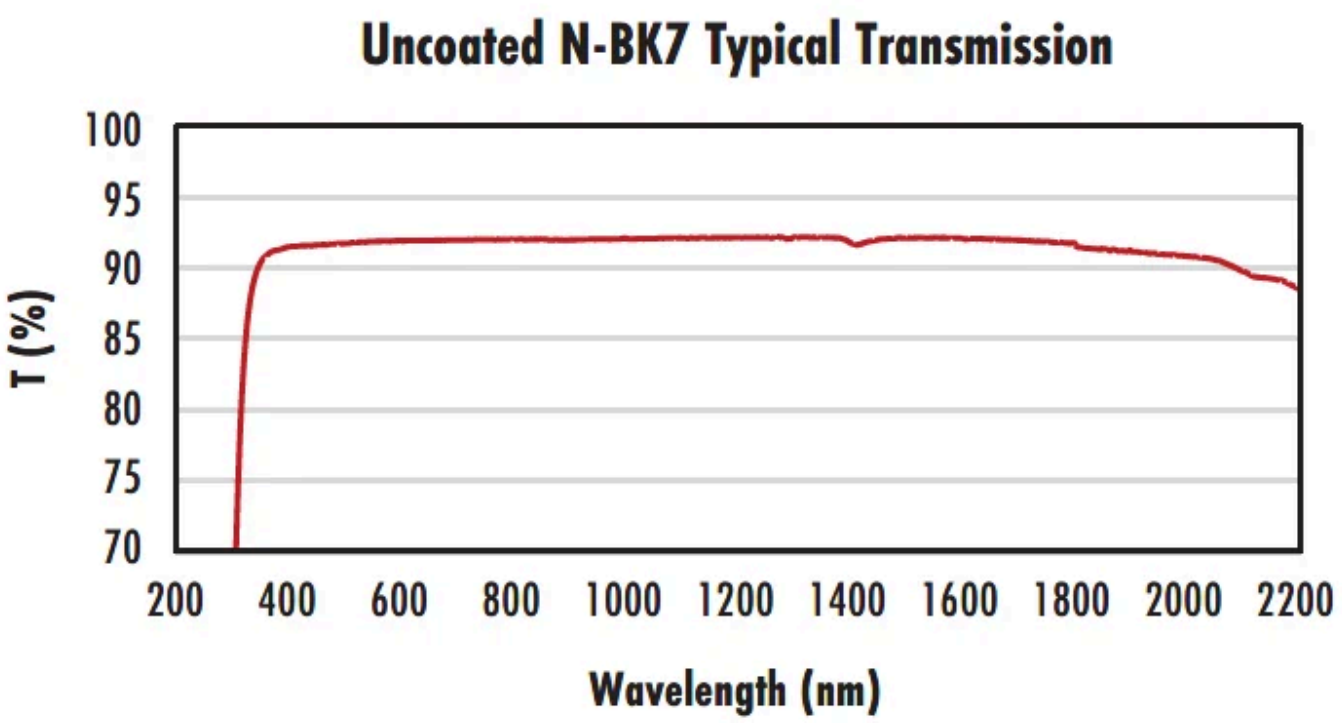
Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**

Product Details

- AR Coated to Provide <0.5% Reflectance per Surface for 600 - 1050nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: **Uncoated**, **MgF_2**, **VIS 0°**, **VIS-NIR**, **NIR II**, **VIS-EXT**, and **YAG-BBAR**

TECHSPEC® NIR I 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® NIR I 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 II**, **VIS-EXT**, and **YAG-BBAR**.

Technical Information



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

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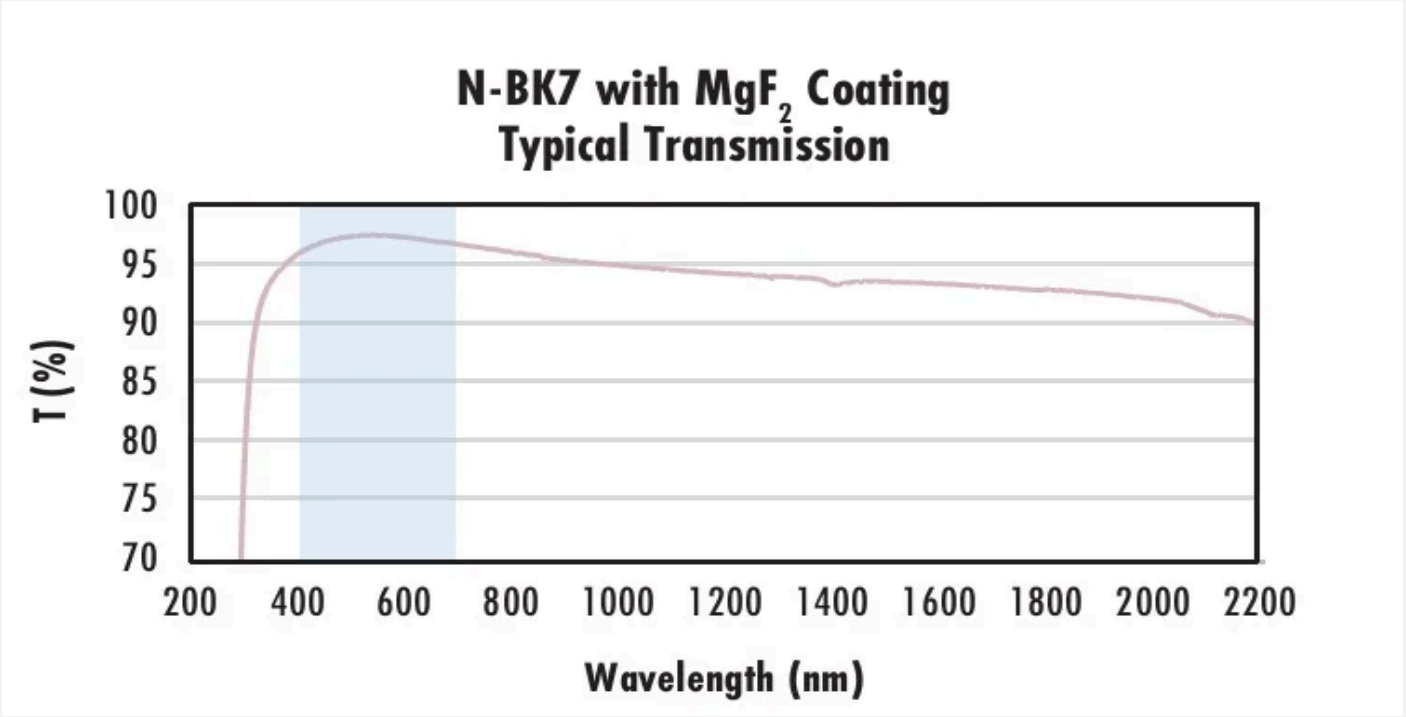

Typical transmission of a 3mm thick N-BK7 window w MgF2 (400-700nm) coating at 0° AOI.

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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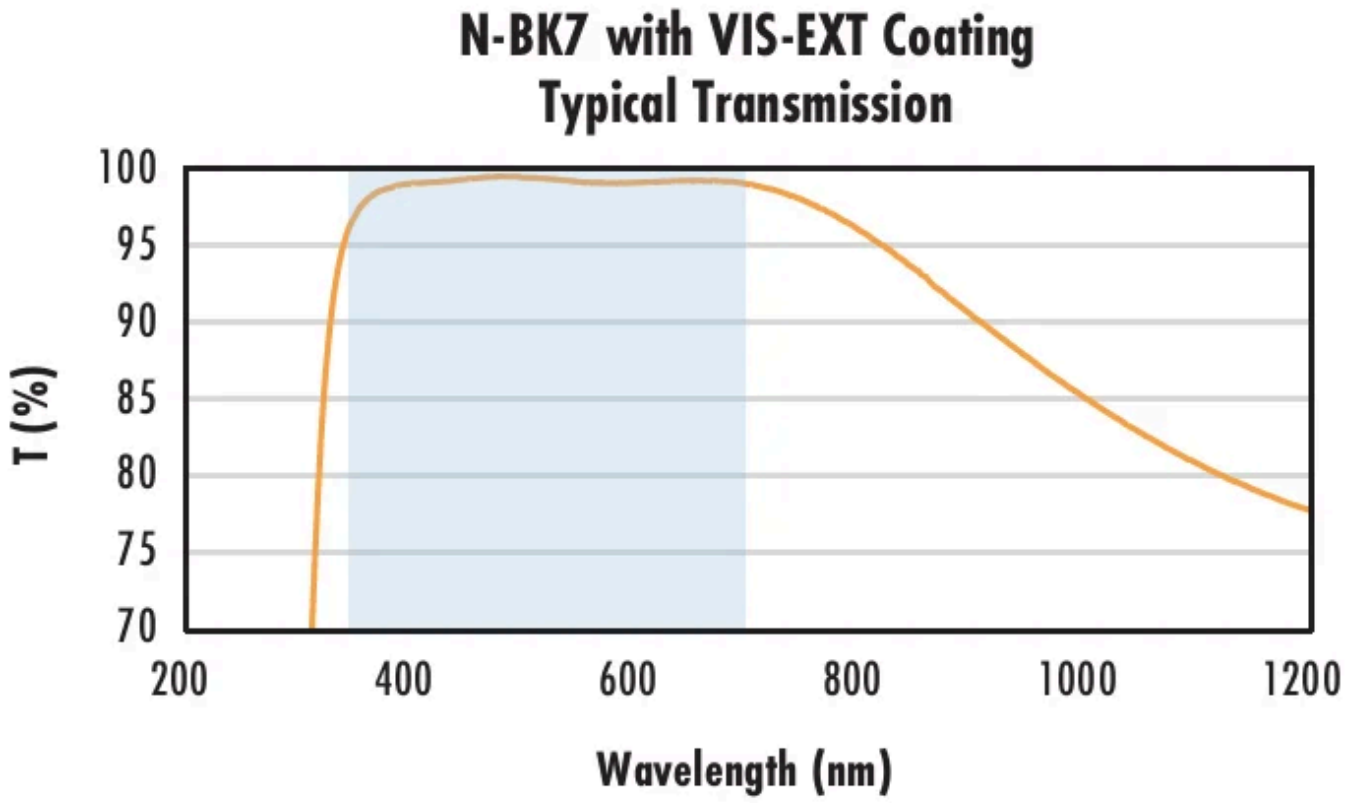

Typical transmission of a 3mm thick N-BK7 window w VIS-EXT (350-700nm) coating at 0° AOI.

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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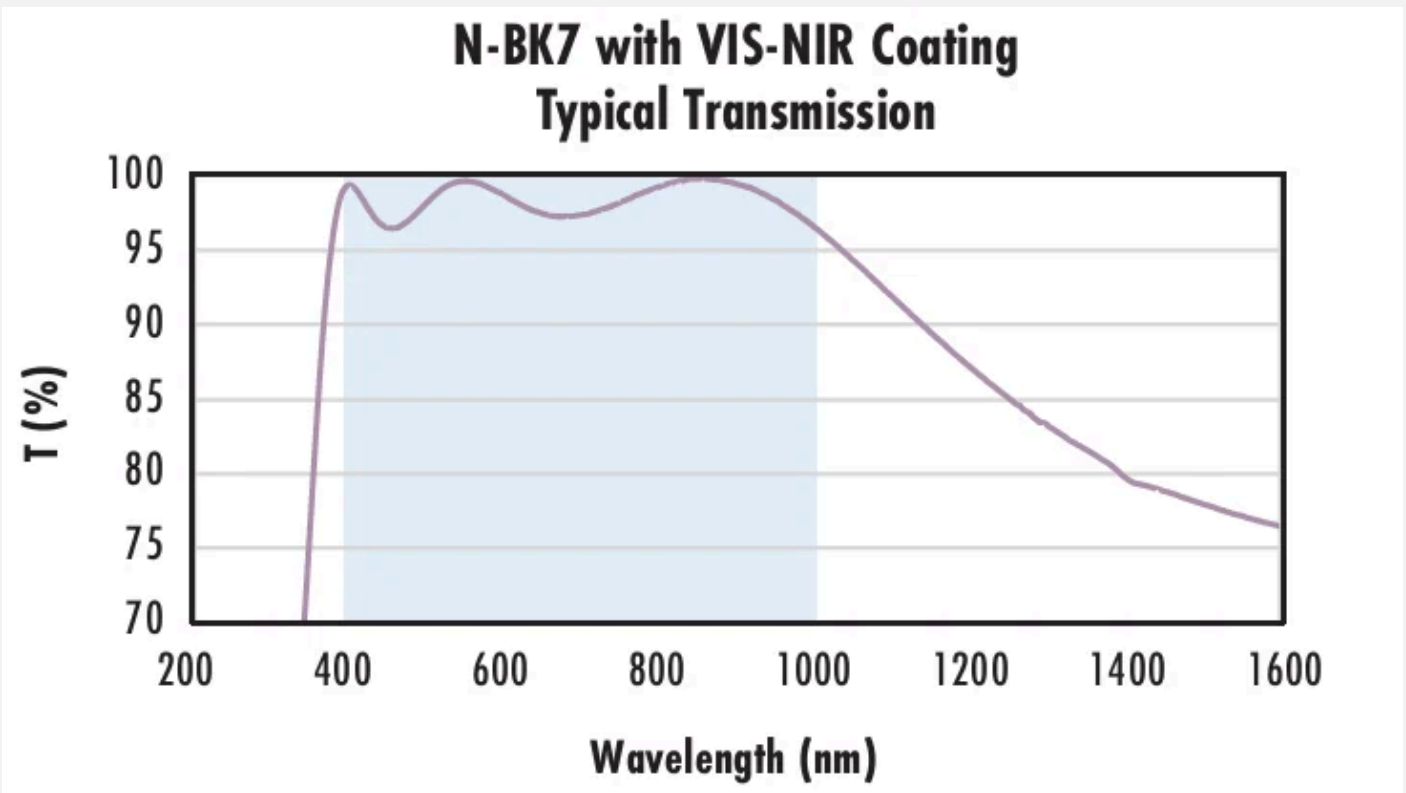

Typical transmission of a 3mm thick N-BK7 window w VIS-NIR (400-1000nm) coating at 0° AOI.

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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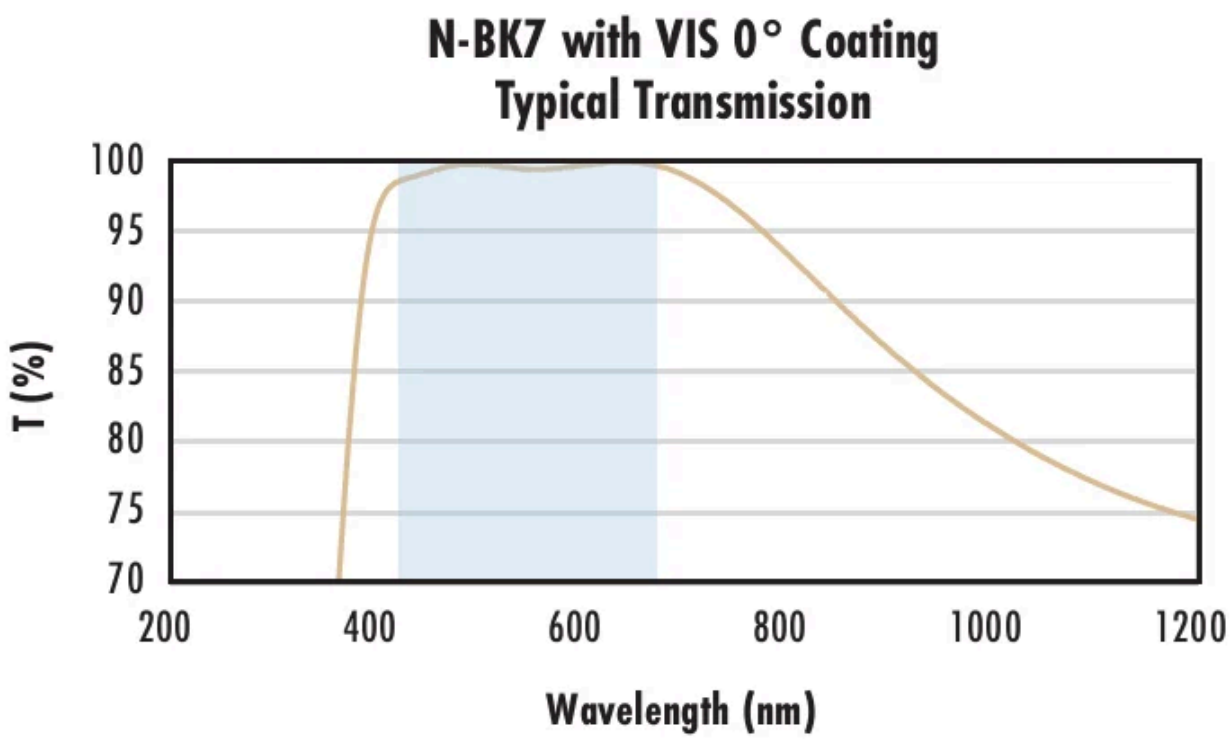

Typical transmission of a 3mm thick N-BK7 window wit 0° (425-675nm) coating at 0° AOI.

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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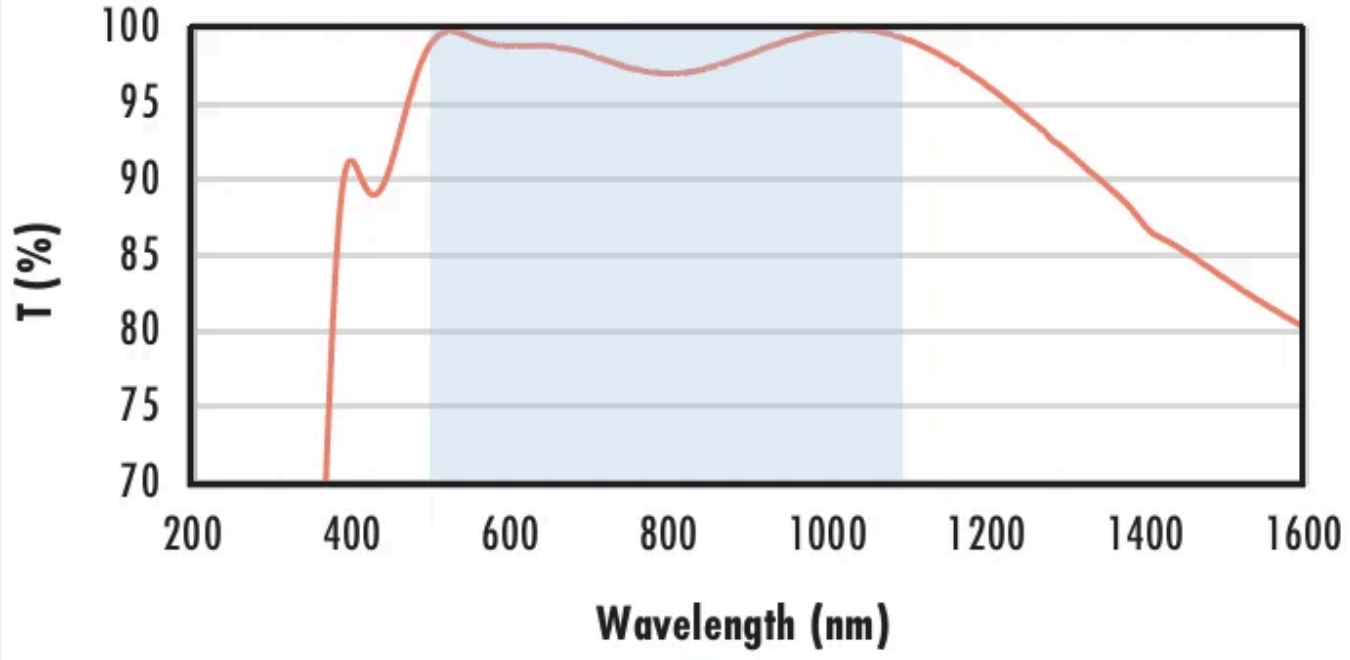

Typical transmission of a 3mm thick N-BK7 window w YAG-BBAR (500-1100nm) coating at 0° AOI.

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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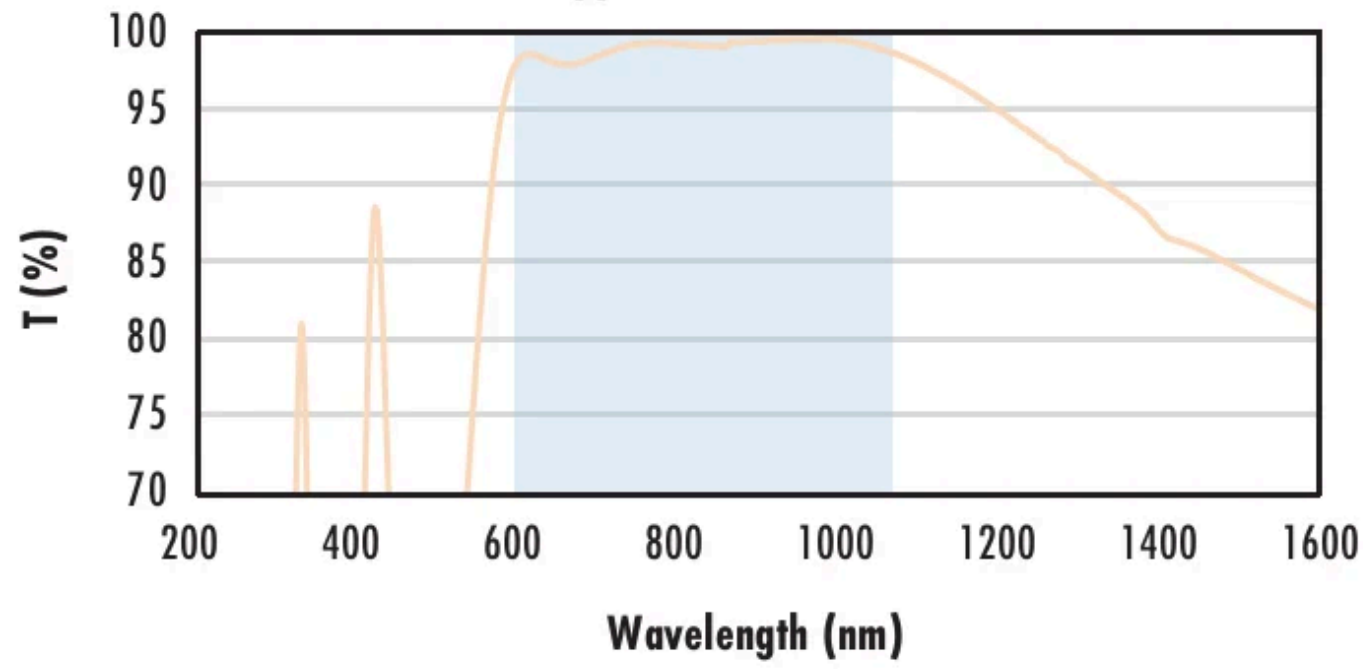

Typical transmission of a 3mm thick N-BK7 window witl I (600 - 1050nm) coating at 0° AOI.

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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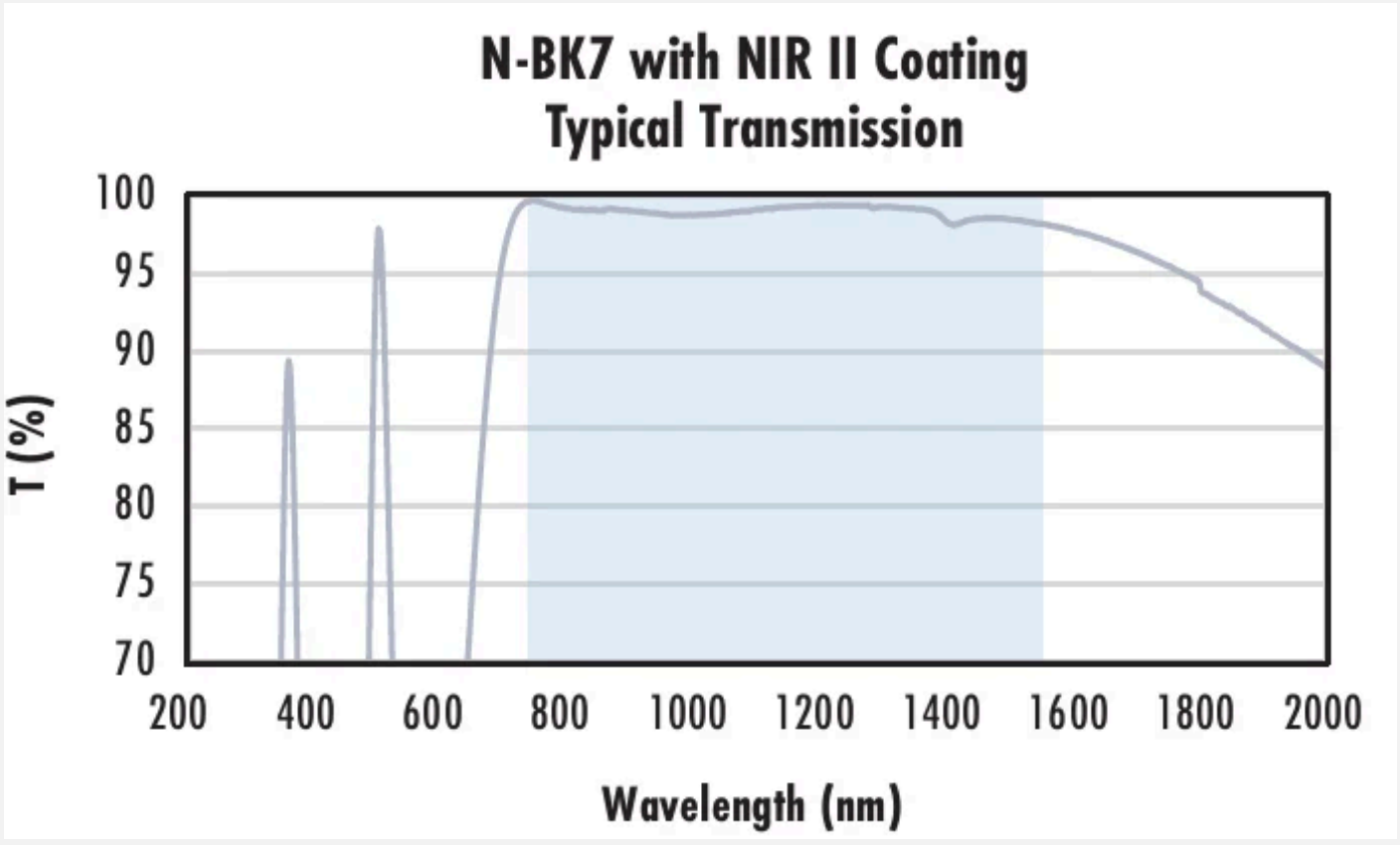

Typical transmission of a 3mm thick N-BK7 window witl
II (750 - 1550nm) coating at 0° AOI.

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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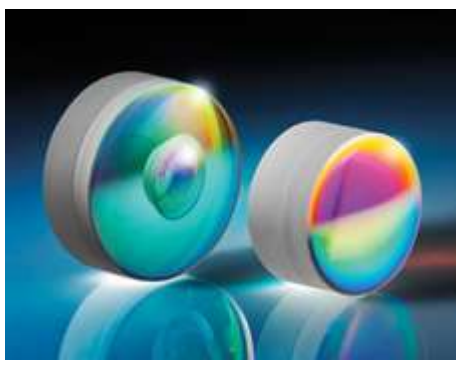


Near-IR (NIR) Achromatic Lenses

Optical Cleaning

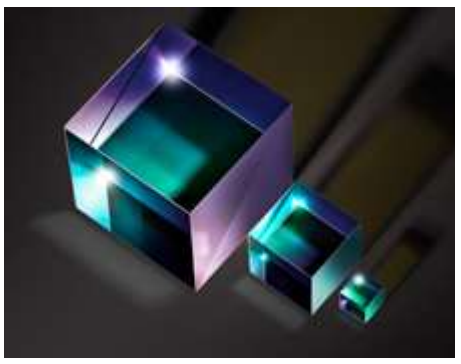
Plano-Convex (PCX) Lenses

Optical Lens and Filter Mounts

Frequently Purchased Together

#03-676 - 7.0 - 40.0 Optic Height, English Bar-Type Optic Holder
₹10,694

Qty



#32-601 - 10mm 50R/50T Cube Beamsplitter
₹21,490

Qty

#32-862 - 25.0mm Dia. x 125.0mm FL, MgF_2 Coated, Plano-Convex Lens
₹4,086

Qty

#33-368 - 25.0mm Dia. x 400.0mm FL, NIR I Coated, Plano-Convex Lens
₹4,792

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	20.0mm Optic Dia., Optic Mount	Fixed		#64-559	₹3,305 Request Quote	14 In Stock 1

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

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Anti-Reflection (AR) Coatings

APPLICATION NOTE
An Introduction to Optical Coatings

APPLICATION NOTE
Understanding Optical Specifications

APPLICATION NOTE
Lens Geometry Performance Comparison

GLOSSARY
NIR (Near Infrared)

GLOSSARY
VIS/NIR Coating

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