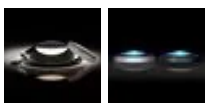
TECHSPEC®

40.0mm Dia. x 80.0mm FL, MgF_2 Coated, Plano-Convex Lens



Stock #33-383 20+ In Stock

Other Coating Options

- 1 +

MRP ₹5,953

Price inclusive of all taxes

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Volume Pricing	
Qty 1-9	₹5,953 each
Qty 10-24	₹5,348 each
Qty 25-49	₹4,767 each
Need More?	Request Quote

Product Downloads

STEP:stp | PDF Drawing:pdf | ISO 10110 Drawing | IGES:igs | Zemax:zar | Zemax:zmx | eDrawing:eprt | Code V:seq | EO Spec Sheet

Download All

General

Type:	Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	40.00 +0.0/-0.025	**Centering (arcmin):**	<1
Center Thickness CT (mm):	8.00 ±0.10	**Edge Thickness ET (mm):**	2.84
Clear Aperture CA (mm):	39	**Bevel:**	Protective as needed

Optical Properties

Effective Focal Length EFL (mm):	80.00 @ 587.6nm	**Back Focal Length BFL (mm):**	74.73
Coating:	MgF_2 (400-700nm)	**Coating Specification:**	R_{avg} ≤1.75% @ 400 - 700nm
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):**	41.34
f/#:	2	**Numerical Aperture NA:**	0.25
Wavelength Range (nm):	400 - 700	**Damage Threshold, By Design:** ⓘ	10 J/cm² @ 532nm, 10ns

Regulatory Compliance

RoHS 2015:	**Compliant**	**Certificate of Conformance:**	**View**
Reach 235:	**Compliant**		
Country of Origin:	United States	**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

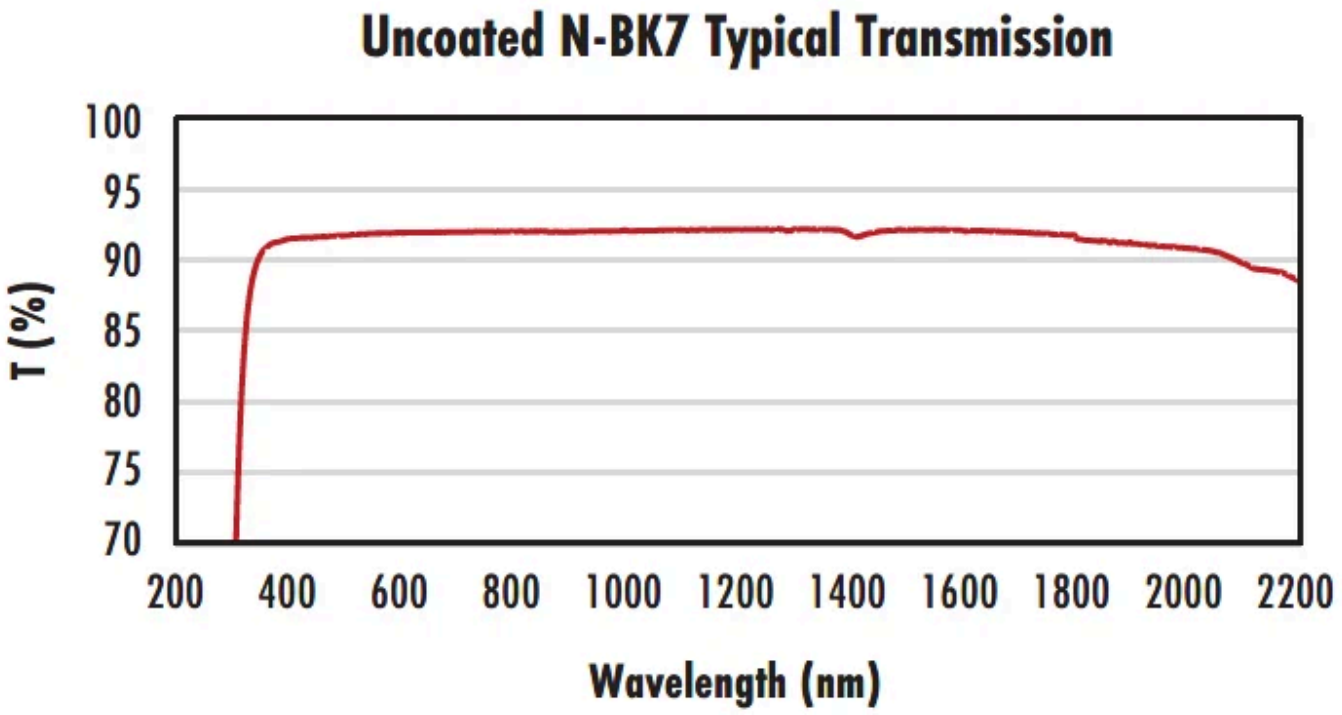
Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**

Product Details

- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: **Uncoated**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, **VIS-EXT**, and **YAG-BBAR**
- Also Available **Pre-Mounted in Engraved C-Mount Housings**

TECHSPEC® MgF2 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® MgF2 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 **VIS 0°**, **VIS-NIR**, **NIR I**, **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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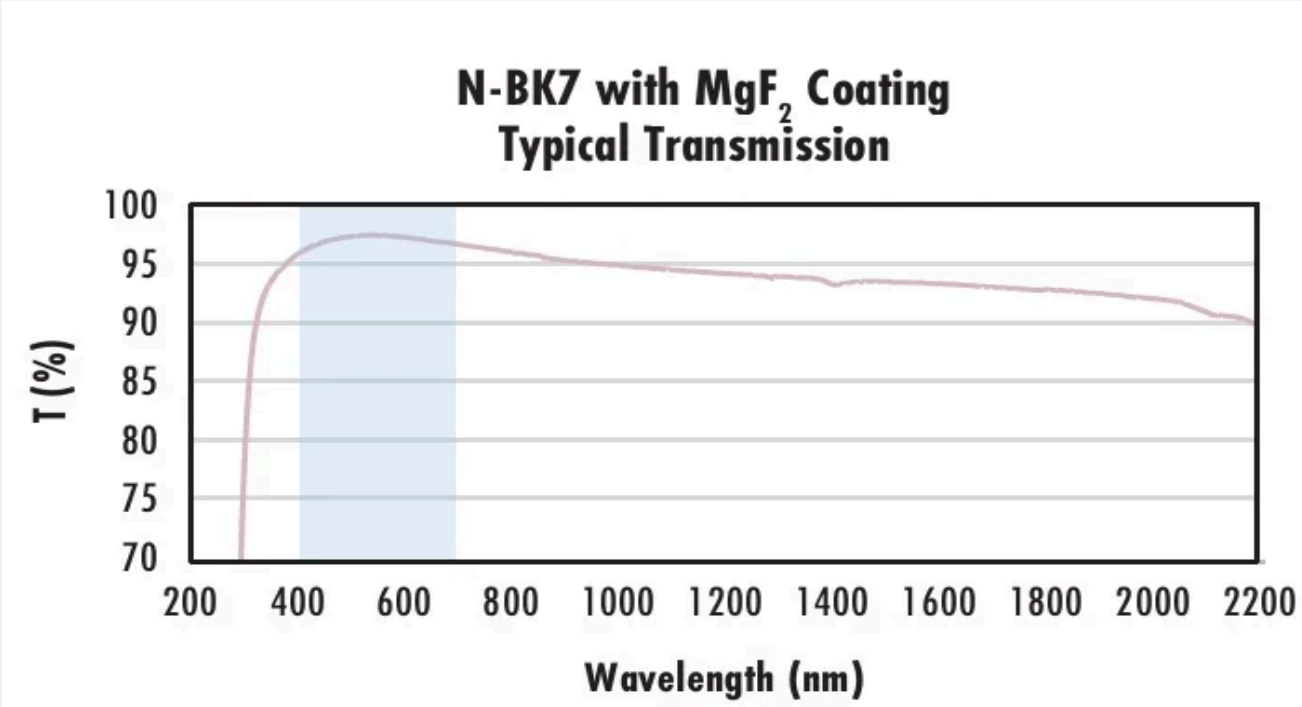

Typical transmission of a 3mm thick N-BK7 window w MgF2 (400-700nm) coating at 0° AOI.

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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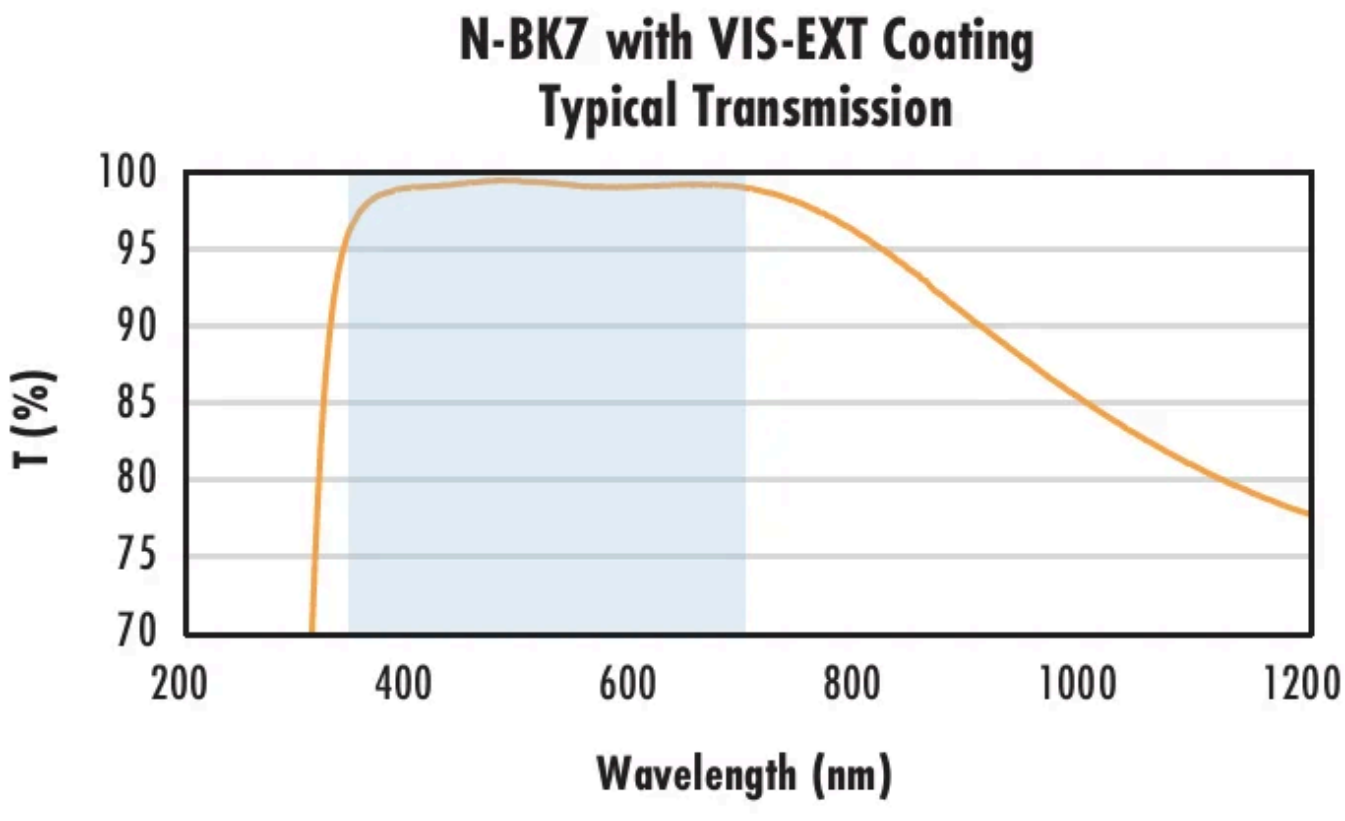

Typical transmission of a 3mm thick N-BK7 window w VIS-EXT (350-700nm) coating at 0° AOI.

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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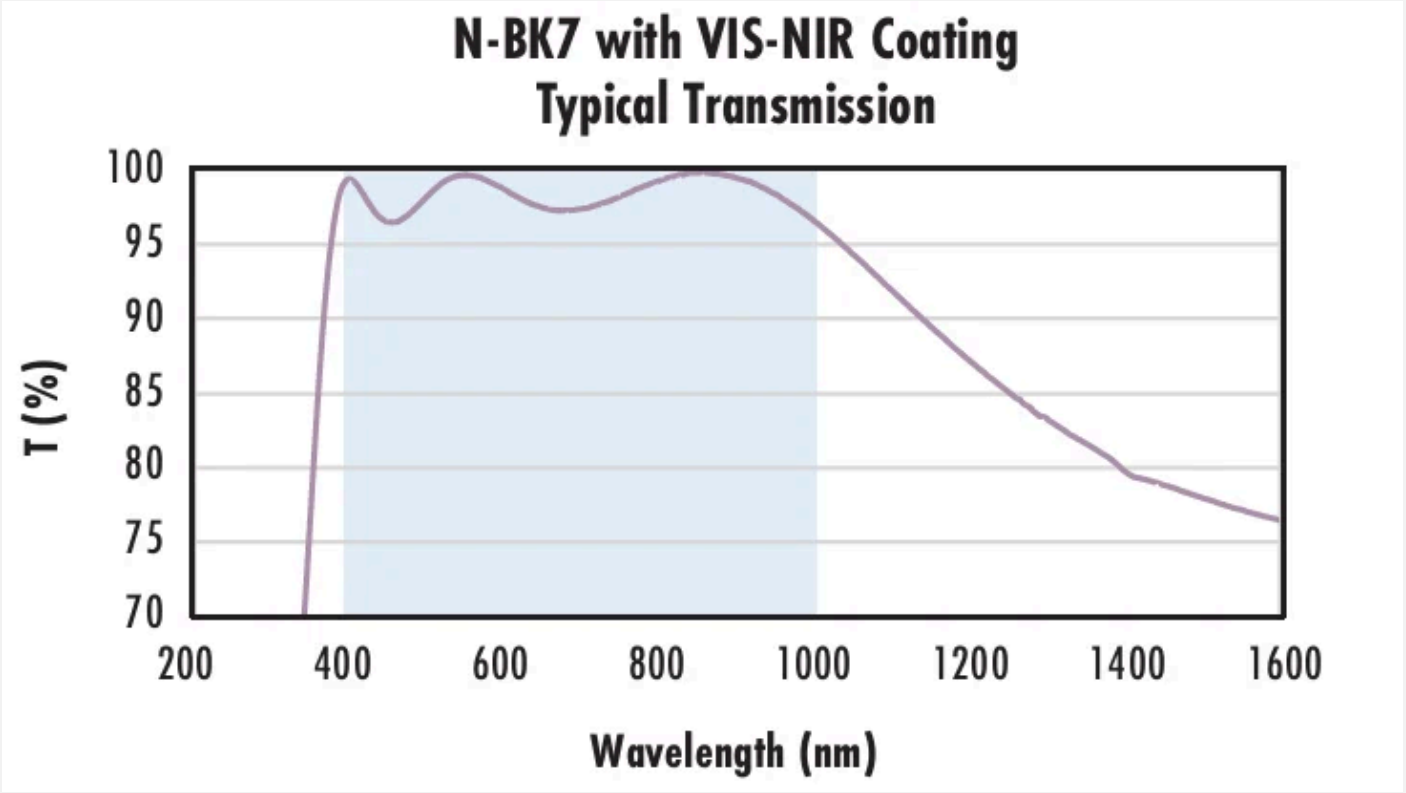

Typical transmission of a 3mm thick N-BK7 window w
VIS-NIR (400-1000nm) coating at 0° AOI.

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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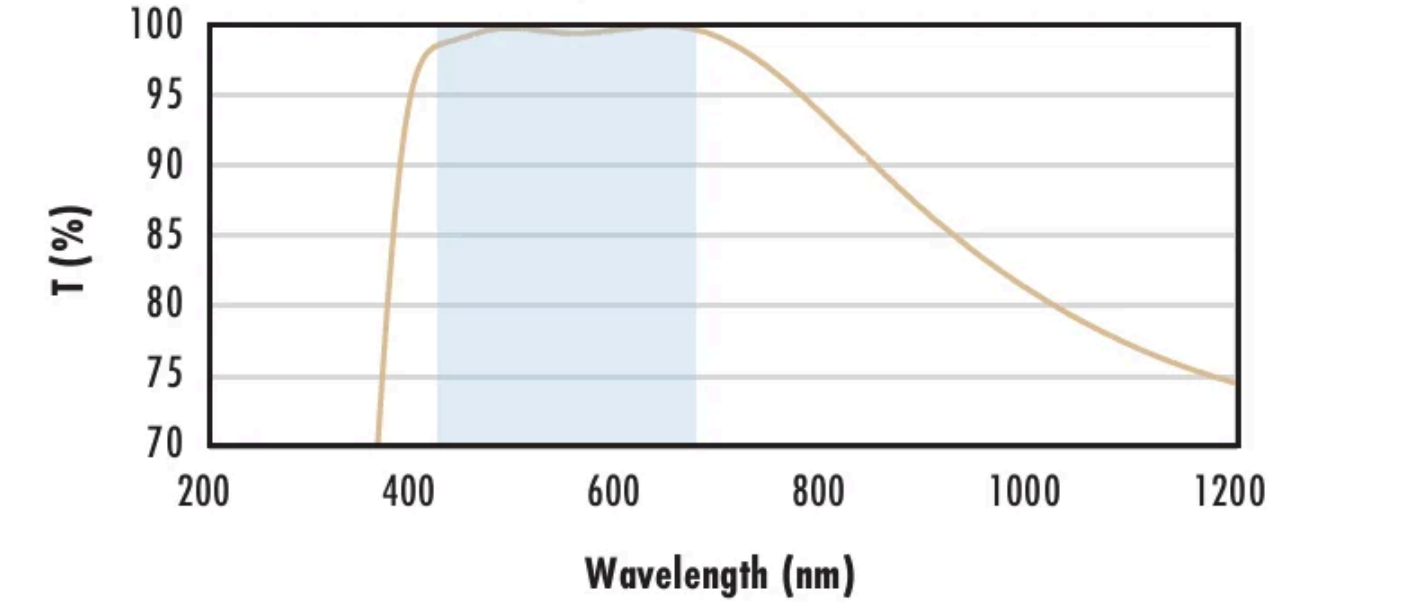

Typical transmission of a 3mm thick N-BK7 window wit
0° (425-675nm) coating at 0° AOI.

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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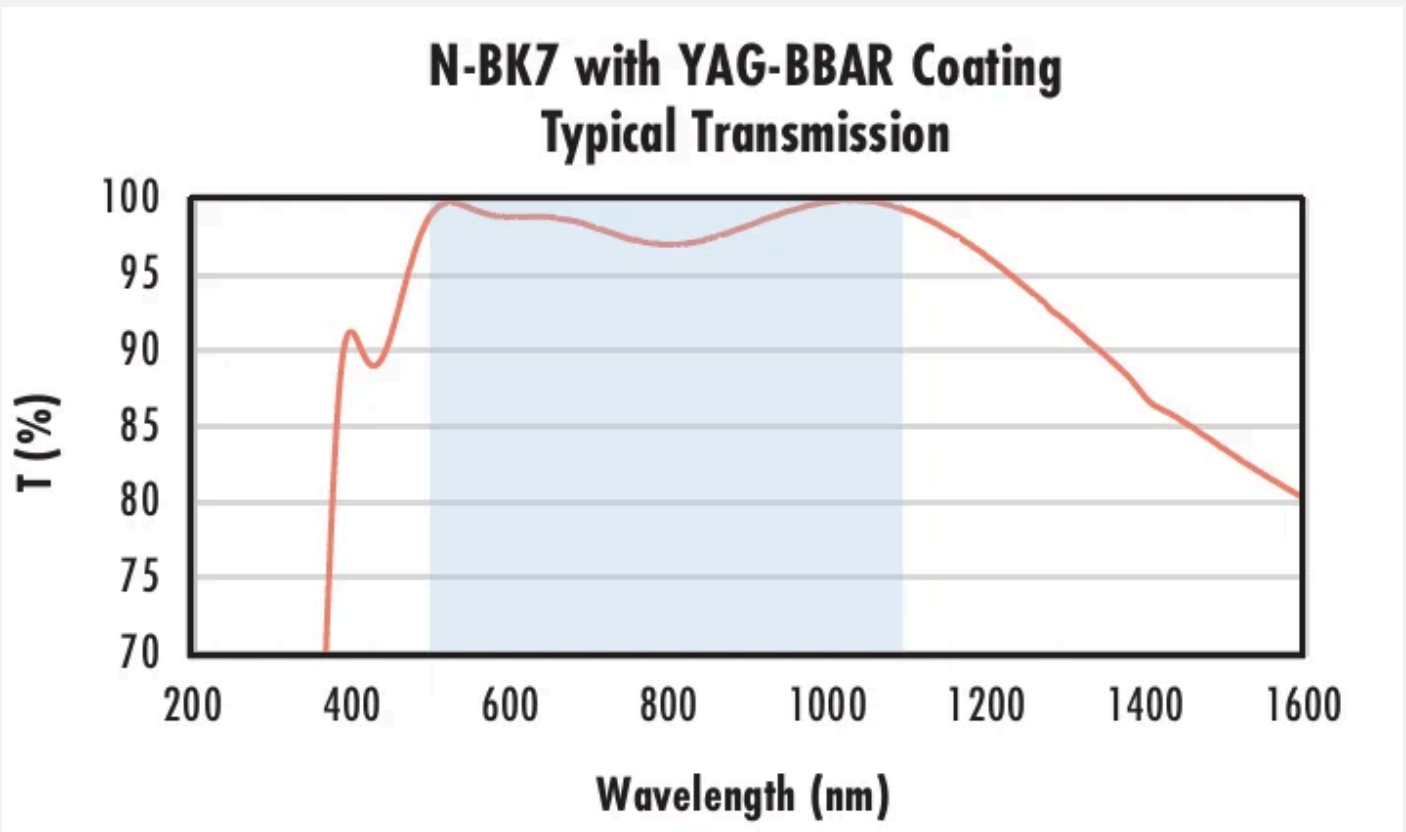

Typical transmission of a 3mm thick N-BK7 window w
YAG-BBAR (500-1100nm) coating at 0° AOI.

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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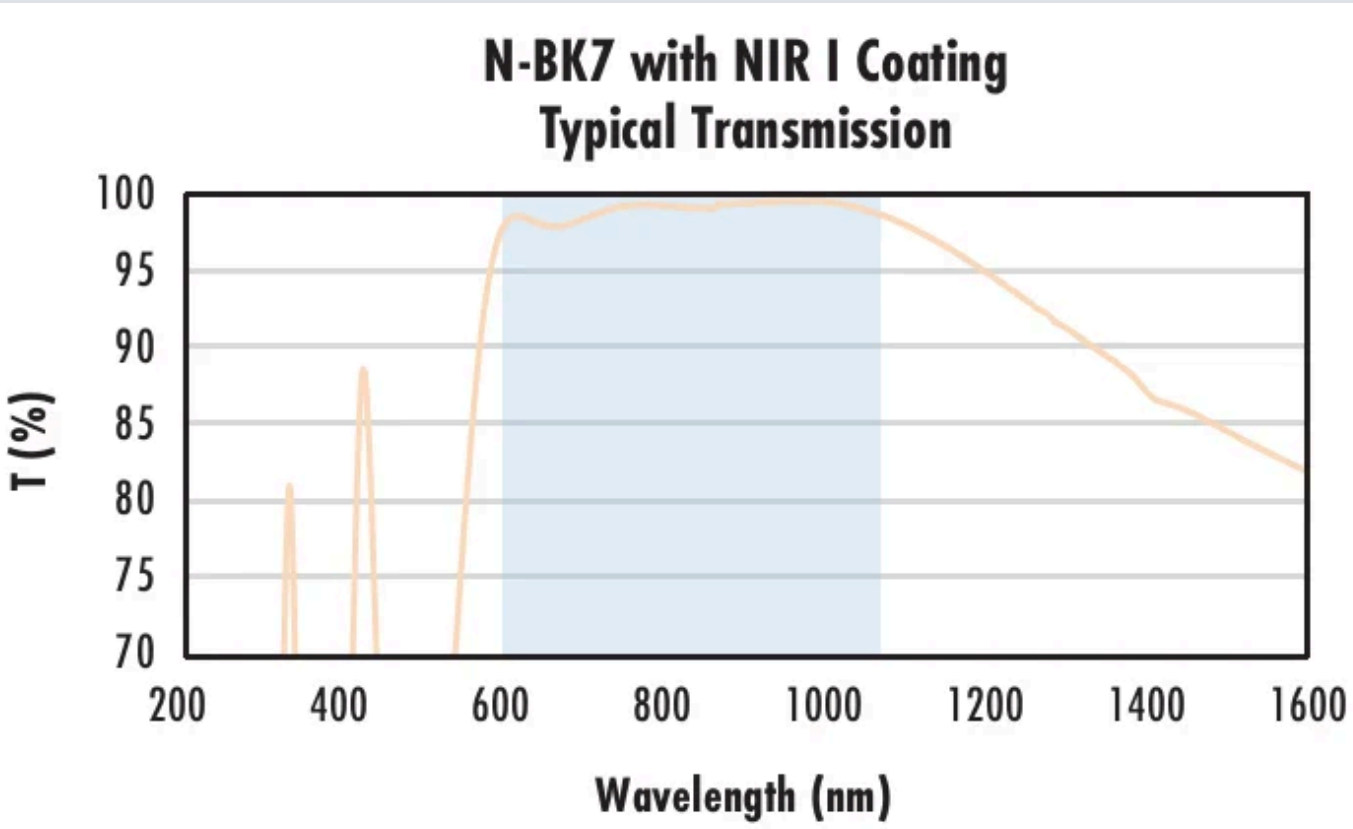


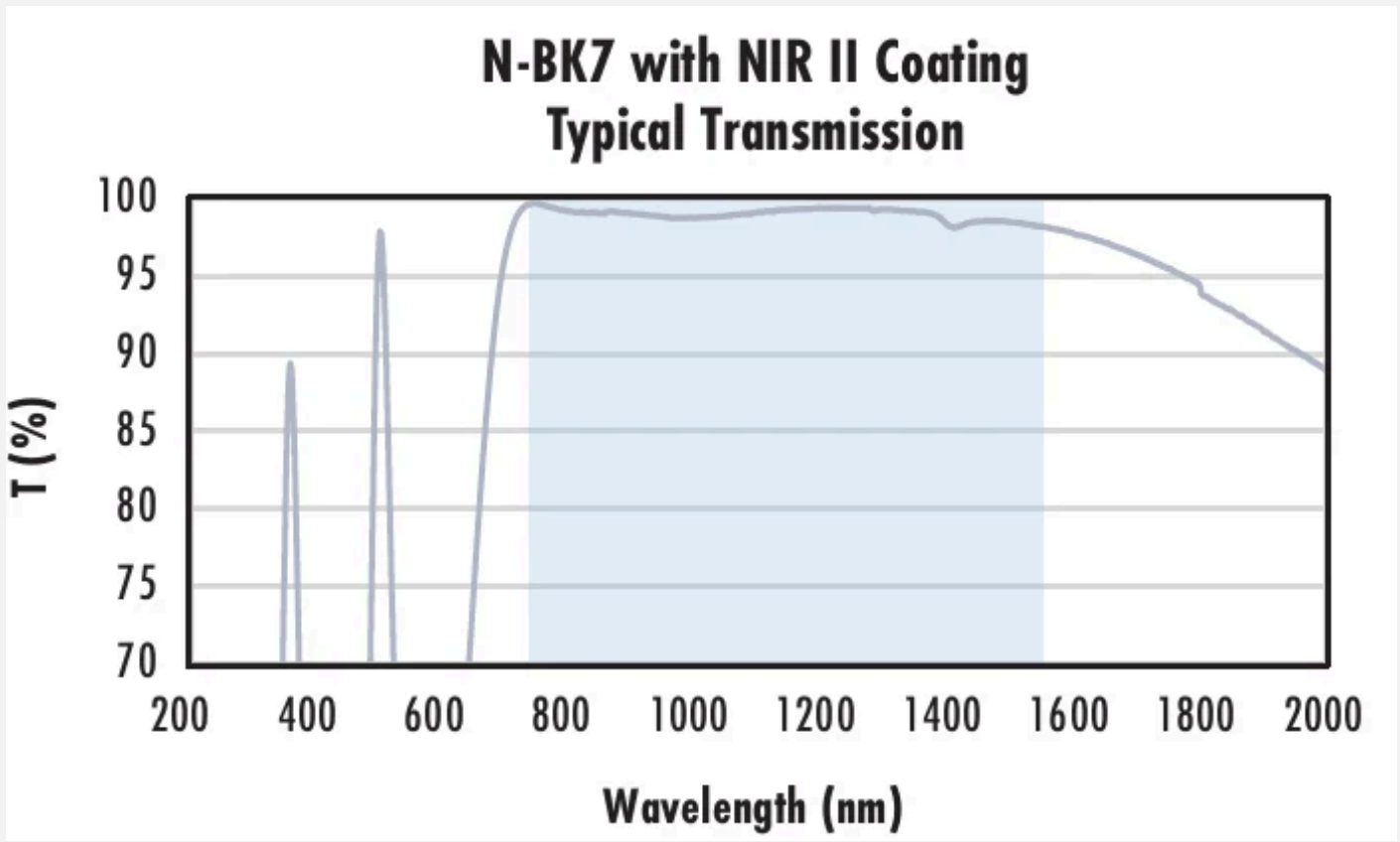
Typical transmission of a 3mm thick N-BK7 window witl I (600 - 1050nm) coating at 0° AOI.

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.

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:

$R_{abs} \leq 1.5\%$ @ 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 fo reference only.

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Coating Curves

MgF₂ (400-700nm)

Please note that coating performance outside each product's specified design range is theoretical and may vary.

Related Products

MgF_2 Coated Achromatic Lenses

Optical Cleaning

Plano-Convex (PCX) Lenses

Optical Lens and Filter Mounts

Frequently Purchased Together

#32-488 - 30.0mm Dia. x 100.0mm FL, MgF_2 Coated, Plano-Convex Lens
₹5,297
Qty

#32-319 - 25mm Dia. x 35mm FL, MgF_2 Coated, Achromatic Doublet Lens
₹12,510
Qty

#32-484 - 30.0mm Dia. x 50.0mm FL, MgF_2 Coated, Plano-Convex Lens
₹5,448
Qty

#32-486 - 30.0mm Dia. x 75.0mm FL, MgF_2 Coated, Plano-Convex Lens
₹5,297
Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	40.0mm Optic Dia., Optic Mount	Fixed		#64-566	₹3,305 Request Quote	10 In Stock 1
MORE+ 	40mm Diameter, T-Mount Thin Optic Mount	Fixed		#57-976	₹7,264 Request Quote	5 In Stock 1

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

Resources

Media Type

- Application Note
- Technical Tool

APPLICATION NOTE
Anti-Reflection (AR) Coatings

APPLICATION NOTE
An Introduction to Optical Coatings

APPLICATION NOTE
Understanding Optical Specifications

- [ ] Trending in Optics
- [ ] FAQ
- [ ] Glossary
- [ ] Video

APPLICATION NOTE

Lens Geometry Performance Comparison

TECHNICAL TOOL

SAG Calculator

TRENDING IN OPTICS

Future of Spherical Lenses

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