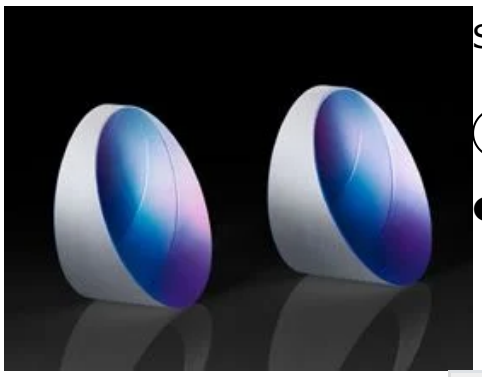
TECHSPEC® 8° Beam Dev. 12.5mm Dia. VIS-NIR, N-BK7 Wedge Prism



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General

Type:	Wedge Prism	**Note:**	Specificy this is S1 & S2 power and irregularity, not the overall power of the wedge

Physical & Mechanical Properties

Diameter (mm):	12.50 +0.00/-0.10	**Thickness (mm):**	1.50
Bevel:	Protective as needed	**Wedge Angle (arcmin):**	14° 51'

Optical Properties

Angle Tolerance (arcsec):	±30	**Coating:**	VIS-NIR (400-1000nm)
Design Wavelength DWL (nm):	632.8	**Substrate:** ⓘ	N-BK7
Surface Quality:	20-10	**Image Orientation:**	Beam Deviation
Coating Specification:	R_{abs} ≤0.25% @ 880nm R_{avg} ≤1.25% @ 400 - 870nm R_{avg} ≤1.25% @ 890 - 1000nm	**Wavelength Range (nm):**	400 - 1000
Power (fringes) @ 632.8nm:	0.50	**Irregularity (fringes) @ 632.8nm:**	0.20
Ray Deviation @ 633nm (°):	8.00	**Power (diopters):**	14.05
Wedge Angle (°):	14.85°		

Material Properties

Coefficient of Thermal Expansion CTE (10^{-6}/°C):	7.1

Regulatory Compliance

RoHS 2015:	**Compliant**	**Certificate of Conformance:**	**View**
Reach 235:	**Compliant**		
Country of Origin:	Singapore	**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.

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Product Details

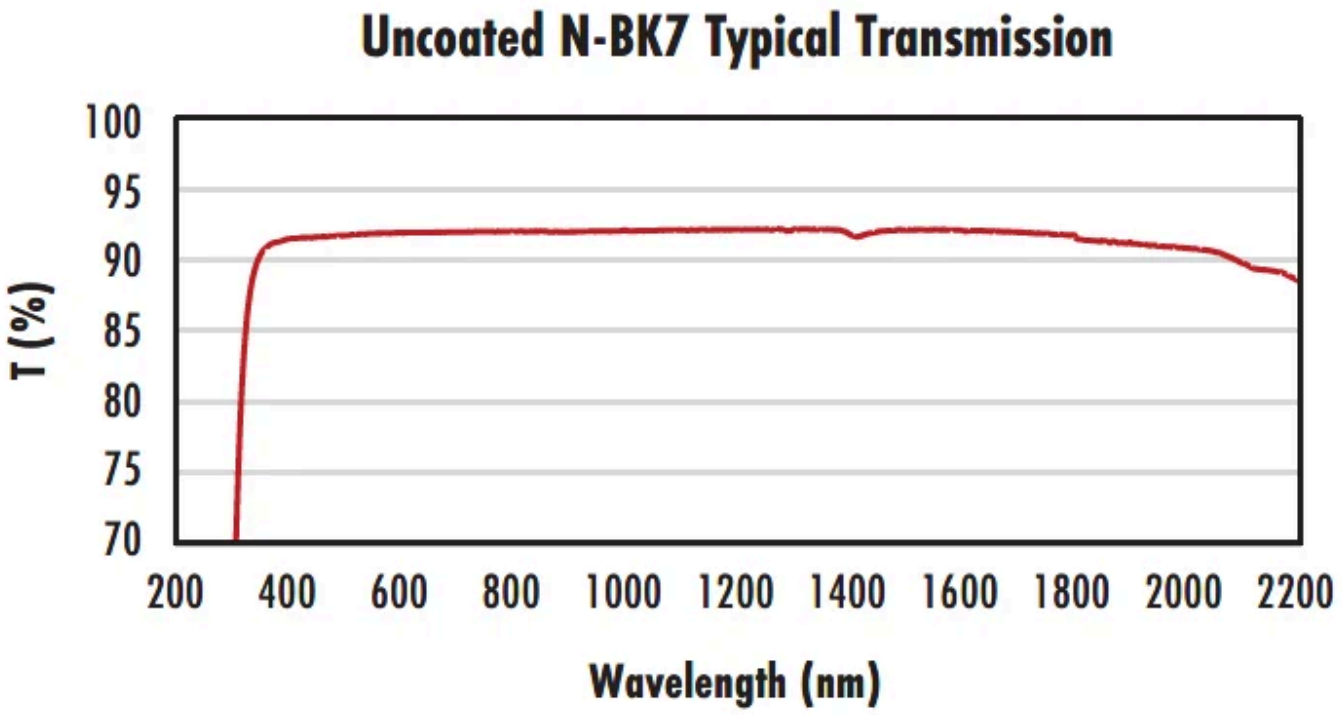
- Ideal for Beam Steering
- 0.5° - 15° Beam Deviation Options
- Available Uncoated or Anti-Reflection Coated
- **Anamorphic Prism Pair** Also Available

Wedge prisms can be used individually to deviate a laser beam a set angle, or two wedge prisms can be used together for beam steering applications. A single wedge prism's ability to deviate the angle of an incident beam is measured in Diopters with 1 diopter deviating the beam 1cm at a 1m working distance.

Two wedge prisms can be used as an anamorphic pair for beam shaping (to correct the elliptical shape of diode outputs). Wedge prisms can also be paired to steer a beam anywhere within a circle described by the full angle 4θ, where θ is the deviation from a single prism. This beam steering is accomplished by rotating the two wedge prisms independently of each other and is typically used to scan a beam to different locations in imaging applications.

Note: Beam deviation is shown in degrees and diopters. One diopter is 1cm of deviation at a distance of 1m from the prism.

Technical Information



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

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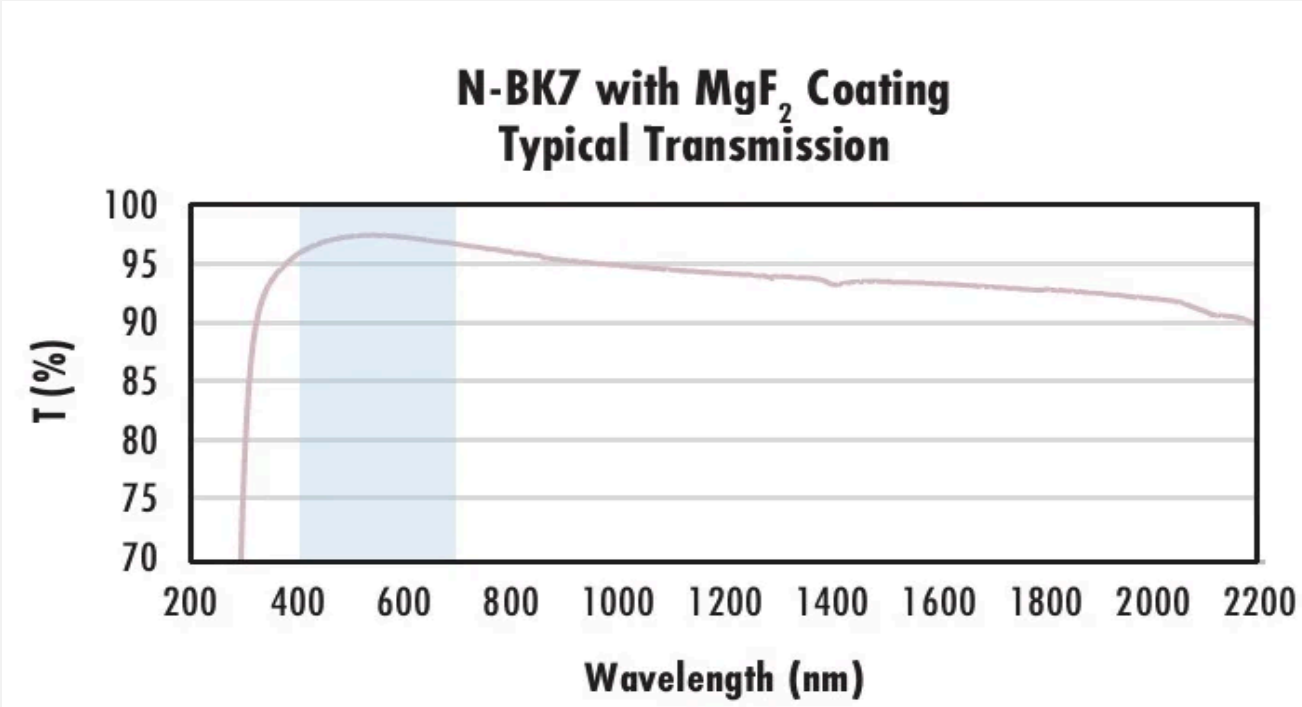

Typical transmission of a 3mm thick N-BK7 window w MgF2 (400-700nm) coating at 0° AOI.

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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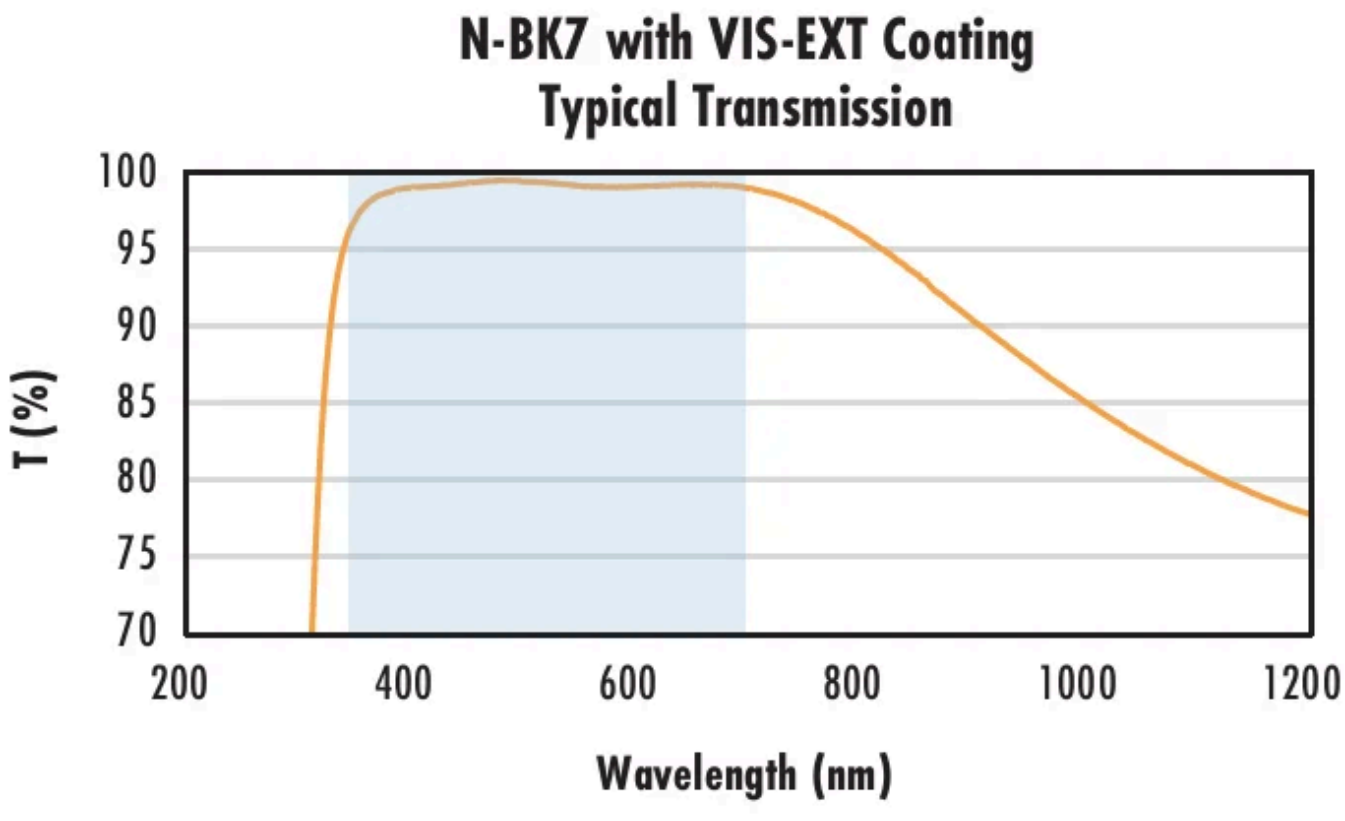

Typical transmission of a 3mm thick N-BK7 window w VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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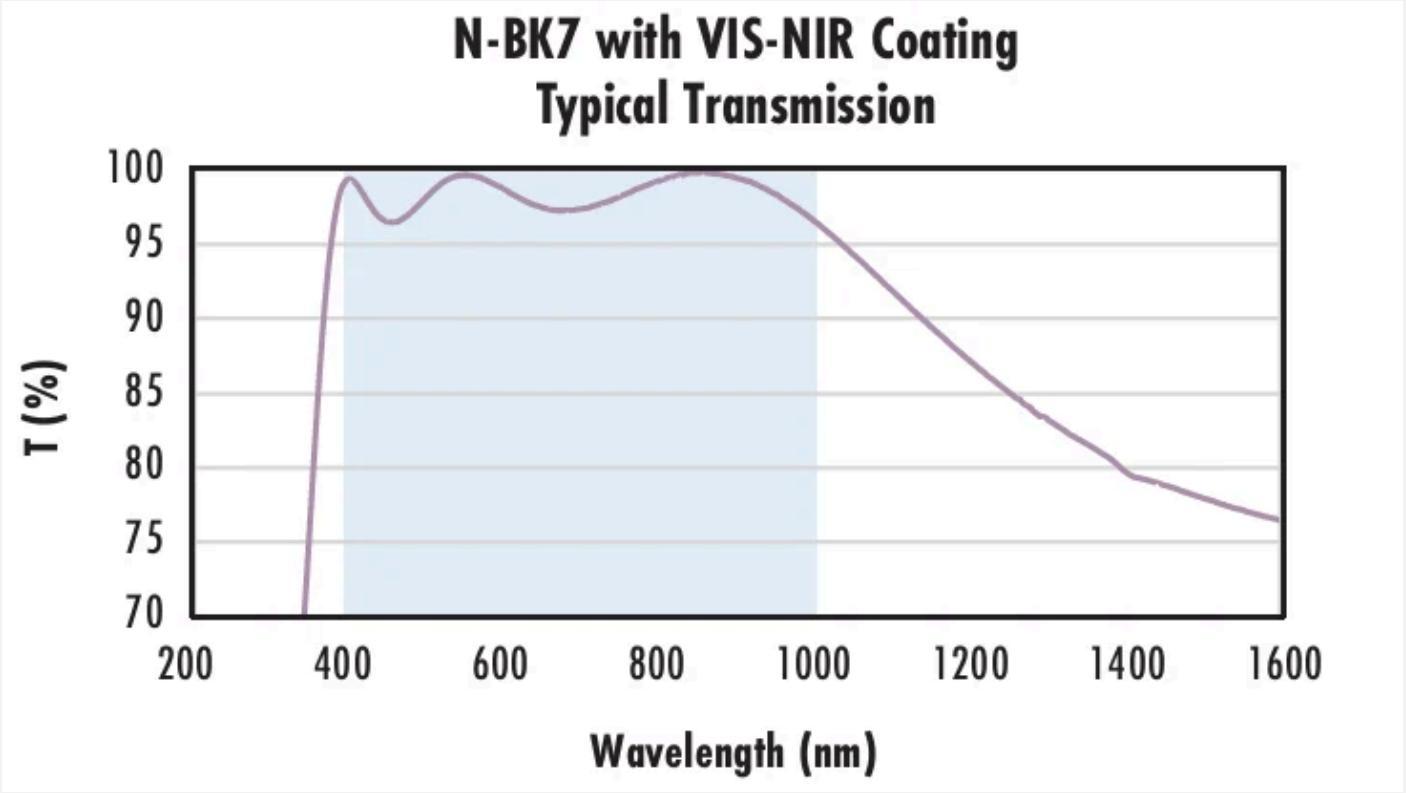

Typical transmission of a 3mm thick N-BK7 window w
VIS-NIR (400-1000nm) coating at 0° AOI.

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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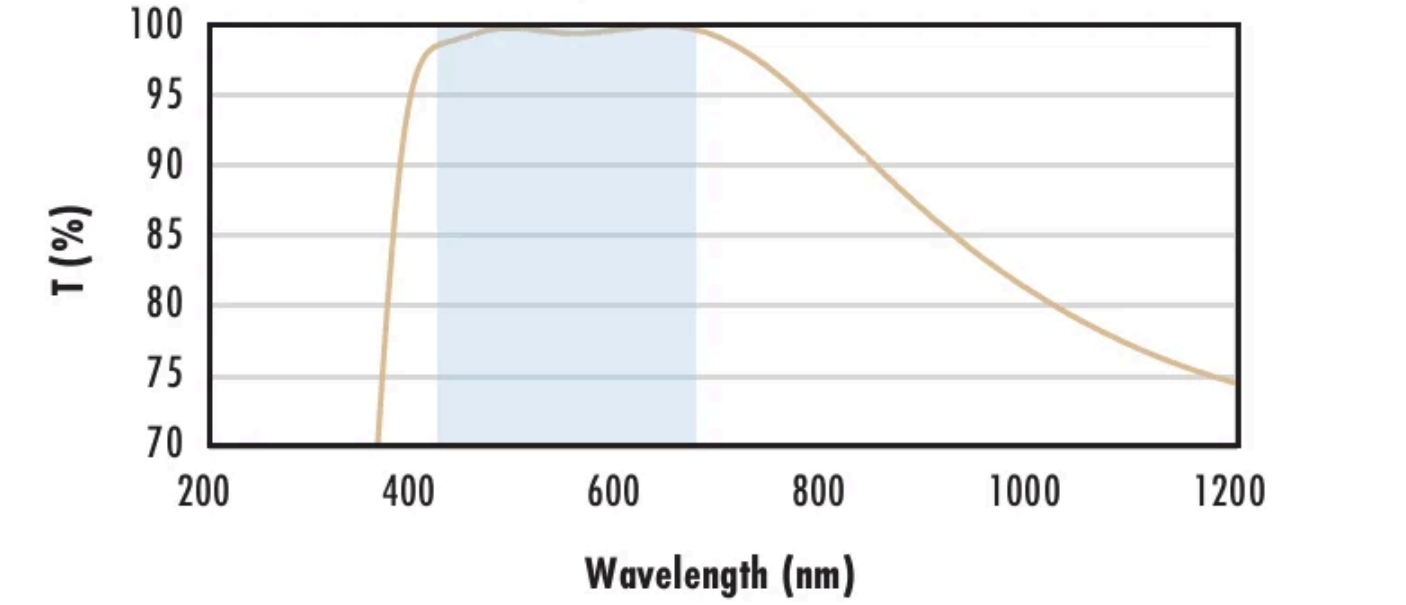

Typical transmission of a 3mm thick N-BK7 window wit
0° (425-675nm) coating at 0° AOI.

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

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

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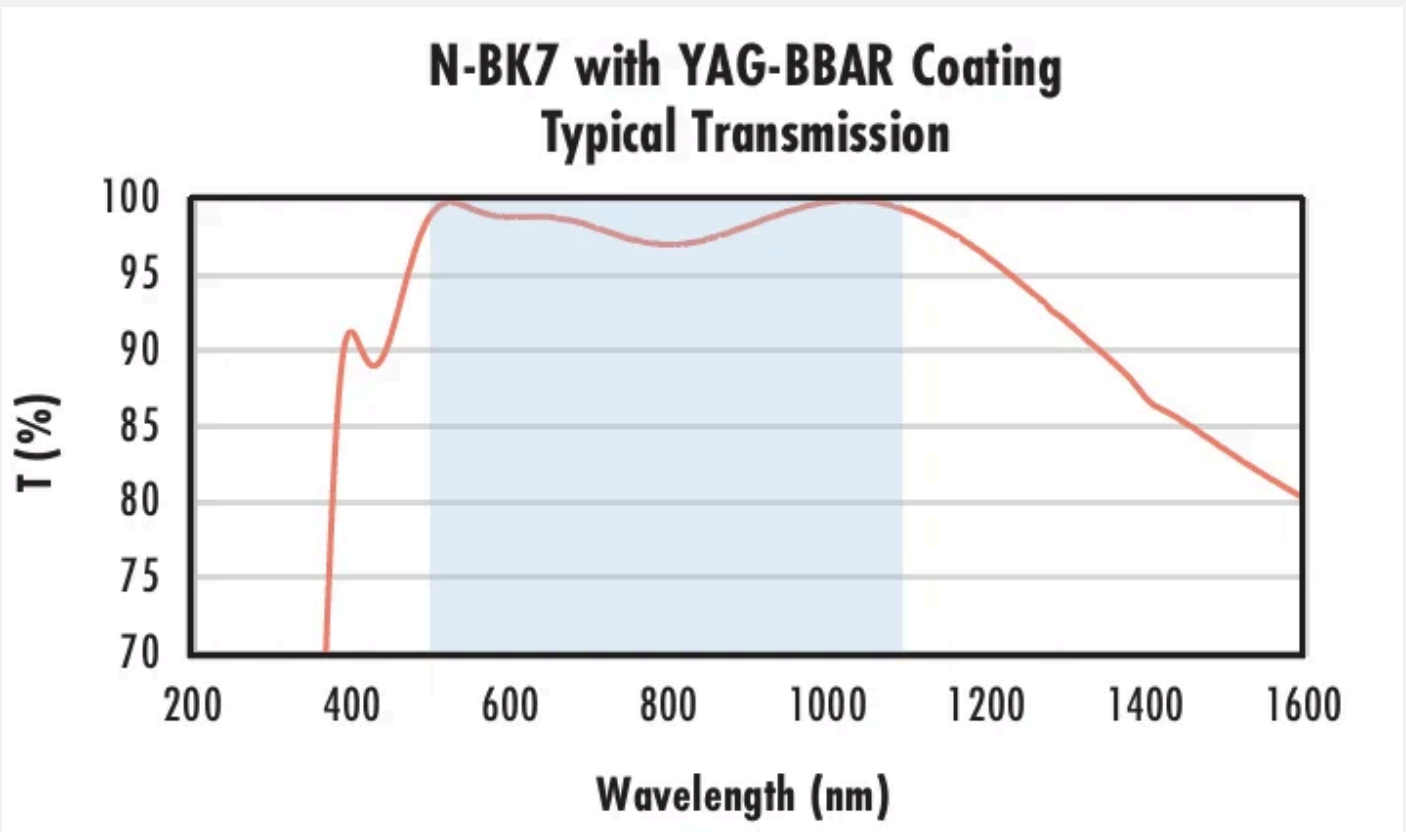

Typical transmission of a 3mm thick N-BK7 window w
YAG-BBAR (500-1100nm) coating at 0° AOI.

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

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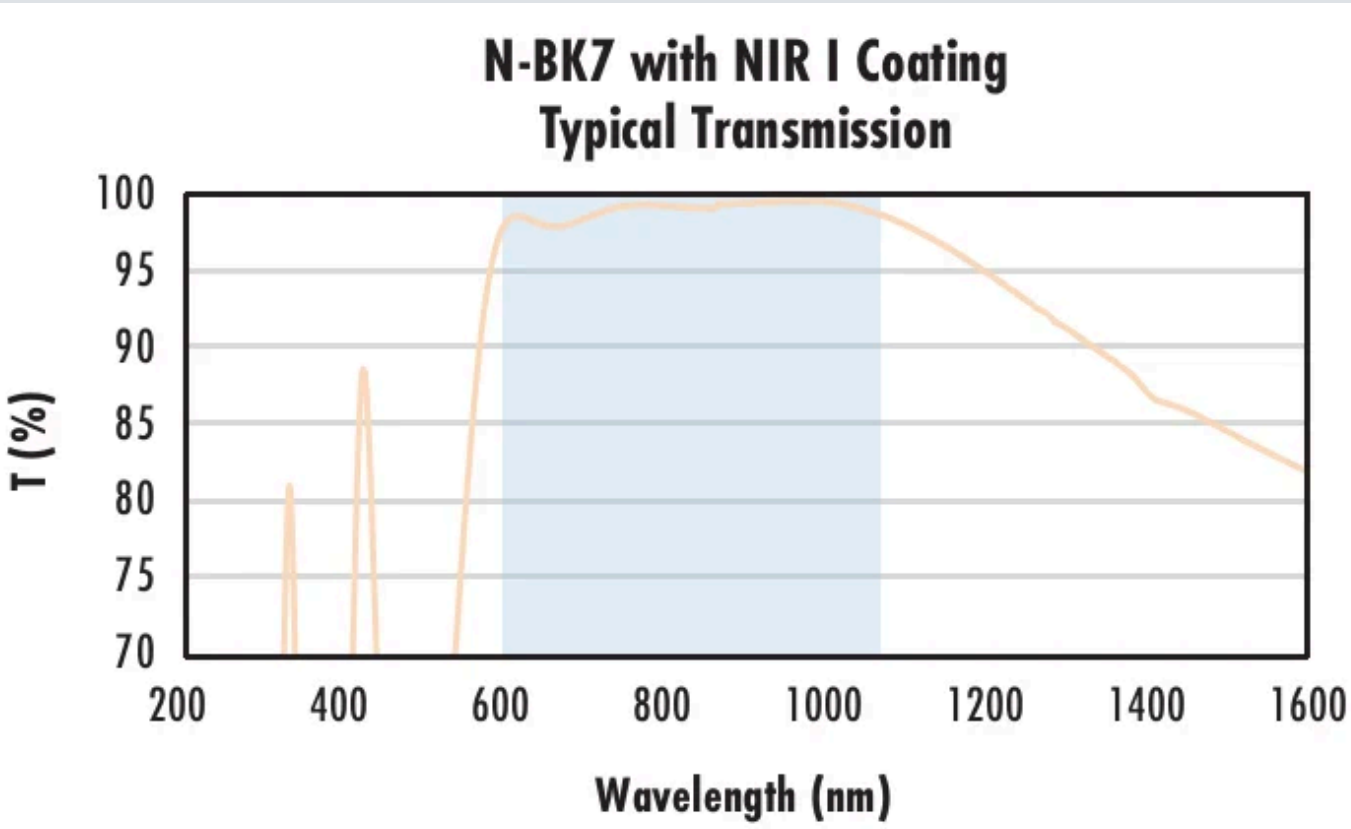

Typical transmission of a 3mm thick N-BK7 window witl I (600 - 1050nm) coating at 0° AOI.

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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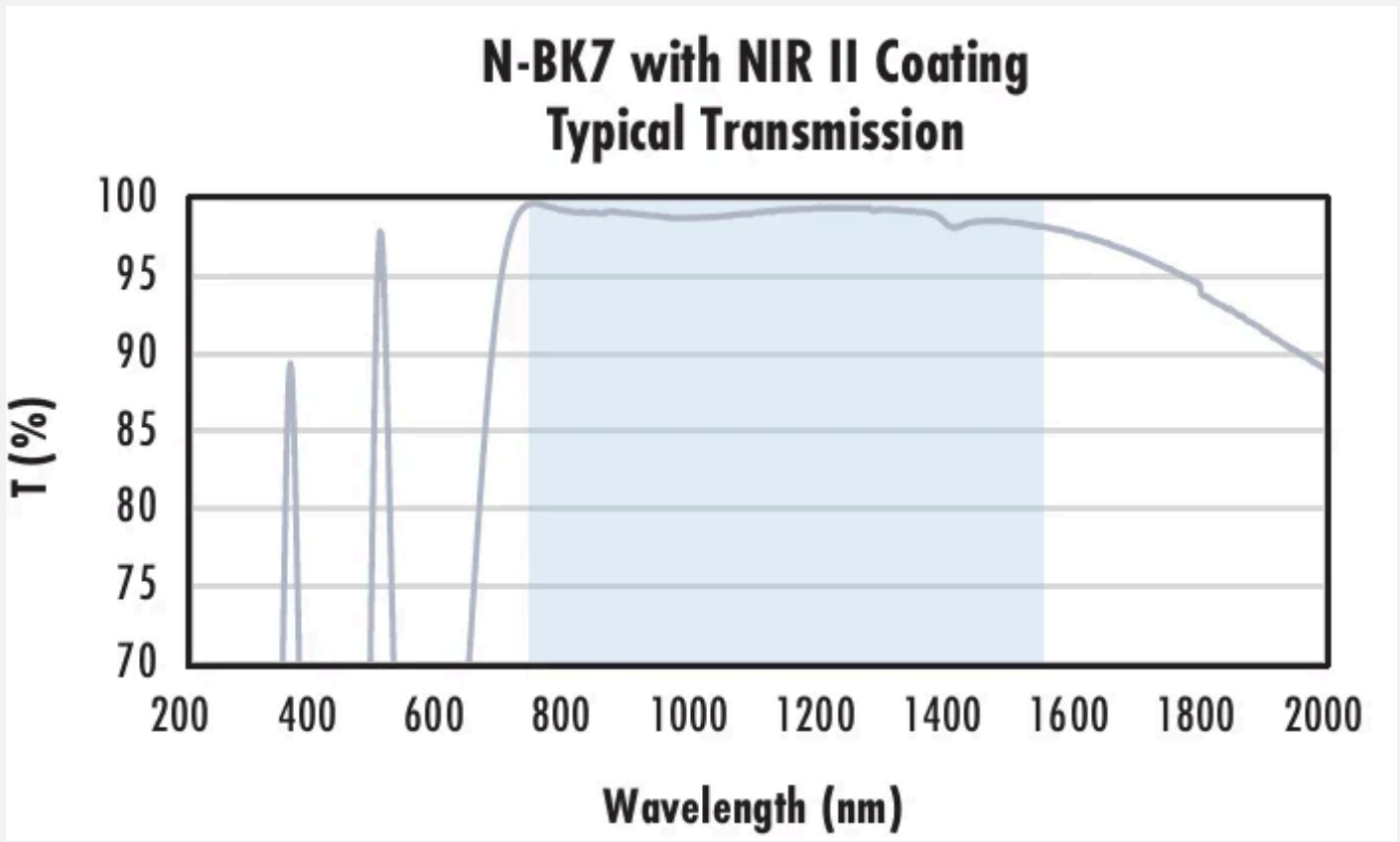

Typical transmission of a 3mm thick N-BK7 window witl II (750 - 1550nm) coating at 0° AOI.

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

$R_{abs} \leq 1.5\%$ @ 750 - 800nm
$R_{abs} \leq 1.0\%$ @ 800 - 1550nm
$R_{avg} \leq 0.7\%$ @ 750 - 1550nm

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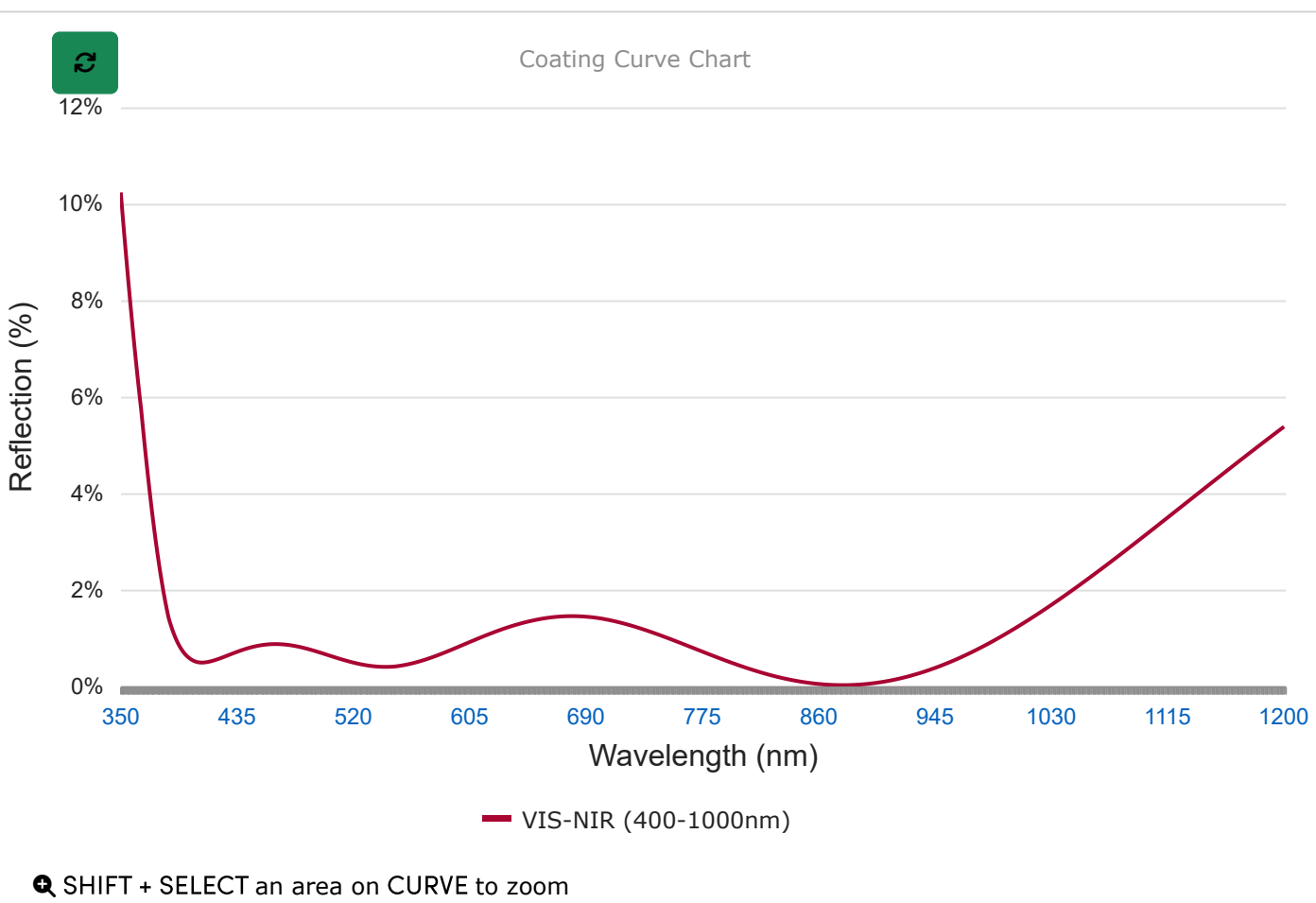
Coating Curves

VIS-NIR (400-1000nm)



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

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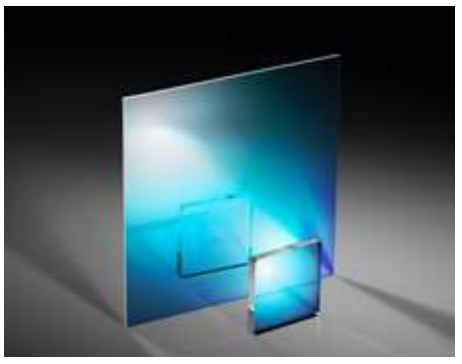
#32-331 – 10mm, Aluminum Coated, N-BK7 Right Angle Prism
₹7,012

Qty



#32-363 – 25 x 38mm, 50R/50T, Plate Beamsplitter
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