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TECHSPEC® 15mm Dia., 3mm Thick, VIS-EXT Coated, λ/4 N-BK7 Window

Stock **#13-292** **6 In Stock**

- 1 + **A$164.80**

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Volume Pricing	
Qty 1-5	**A$164.80** each
Qty 6-25	**A$132.80** each
Qty 26-49	**A$123.20** each
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SPECIFICATIONS

General

Type:

Protective Window

Physical & Mechanical Properties

Bevel:

Protective as needed

Clear Aperture (%):	90
Clear Aperture CA (mm):	13.50
Diameter (mm):	15.00 +0.0/-0.25
Thickness (mm):	3.00 ±0.20
Edges:	Fine Ground
Knoop Hardness (kg/mm^2):	610.00
Parallelism (arcmin):	<1
Poisson's Ratio:	0.21
Young's Modulus (GPa):	82

Optical Properties

Abbe Number (v_d):	64.17
Coating:	VIS-EXT (350-700nm)
Coating Specification:	R_{avg} <0.5% @ 350 - 700nm
Index of Refraction (n_d):	1.516
Substrate:	N-BK7
Surface Flatness (P-V):	λ/4
Surface Quality:	60-40
Wavelength Range (nm):	350 - 700
Damage Threshold, By Design:	5 J/cm^2 @ 532nm, 10ns

Material Properties

Coefficient of Thermal Expansion CTE (10^{-6}/°C):	7.1 (-30 to +70°C) 8.3 (+20 to +300°C)
Density (g/cm^3):	2.51

Regulatory Compliance

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

PRODUCT DETAILS

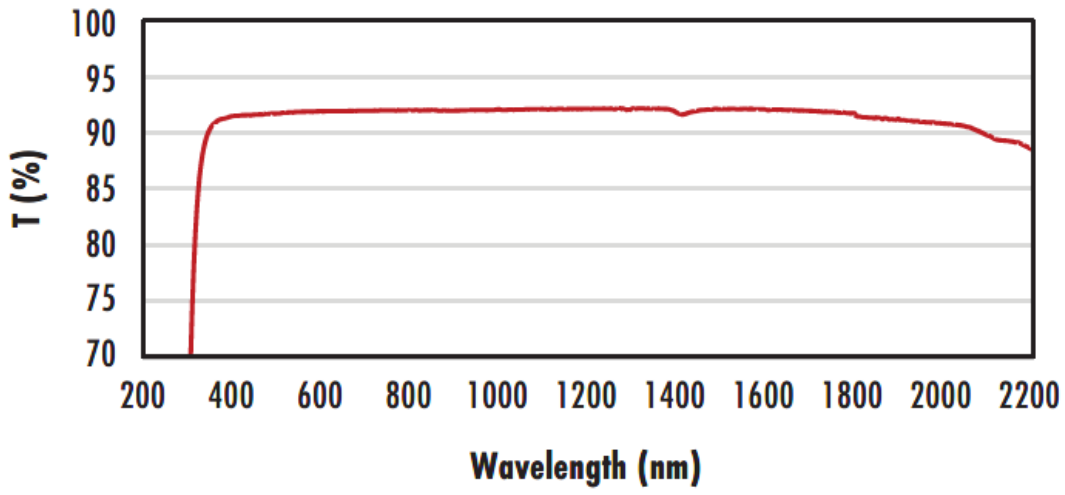
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with **Ultra-Thin N-BK7 Windows**

TECHSPEC® λ/4 N-BK7 Precision Windows are ideally suited for industrial and low-power laser applications. The high tolerance design yields minimal beam distortion and scatter. Broadband coating options extend the range of these precision windows through the visible and near-infrared spectra. TECHSPEC® λ/4 N-BK7 Precision Windows are offered in circular and rectangular sizes ranging from 2mm to 200mm.

Note: New additions to this product family may be specified with a transmitted wavefront distortion (TWD) specification instead of a surface flatness. For more information on the difference between these two specifications, see our application note on **Understanding Optical Windows**.

TECHNICAL INFORMATION

N-BK7



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

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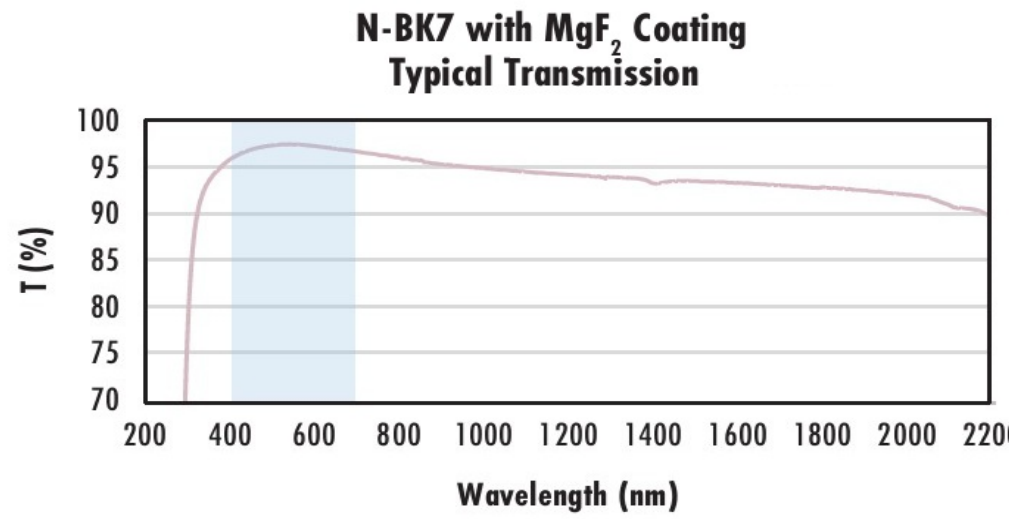

Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.

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

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

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

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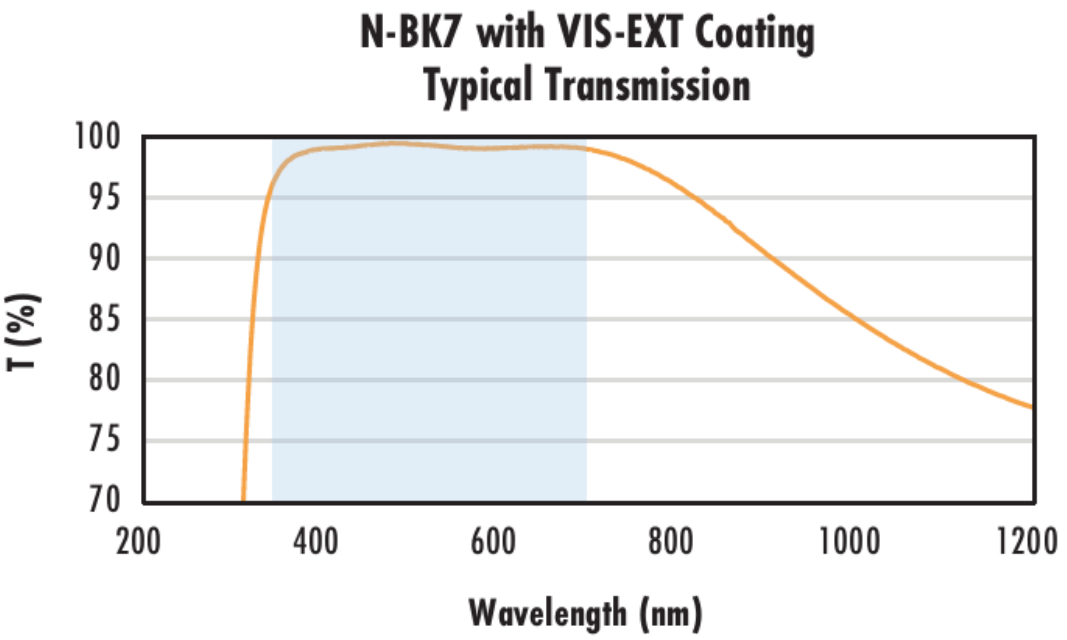

Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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

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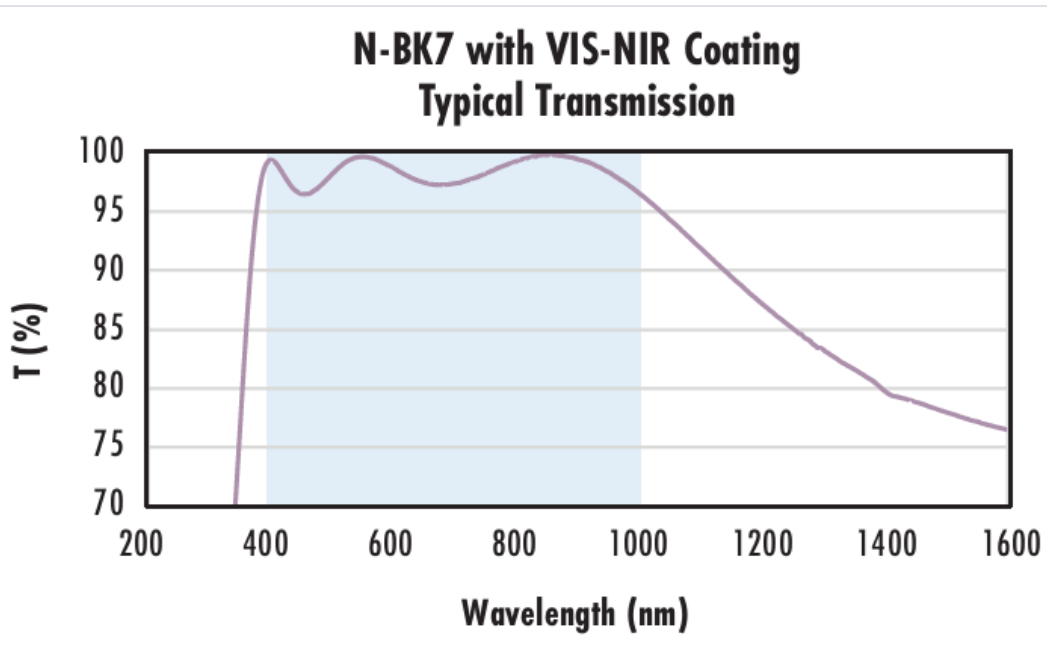

Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design 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 for reference only.

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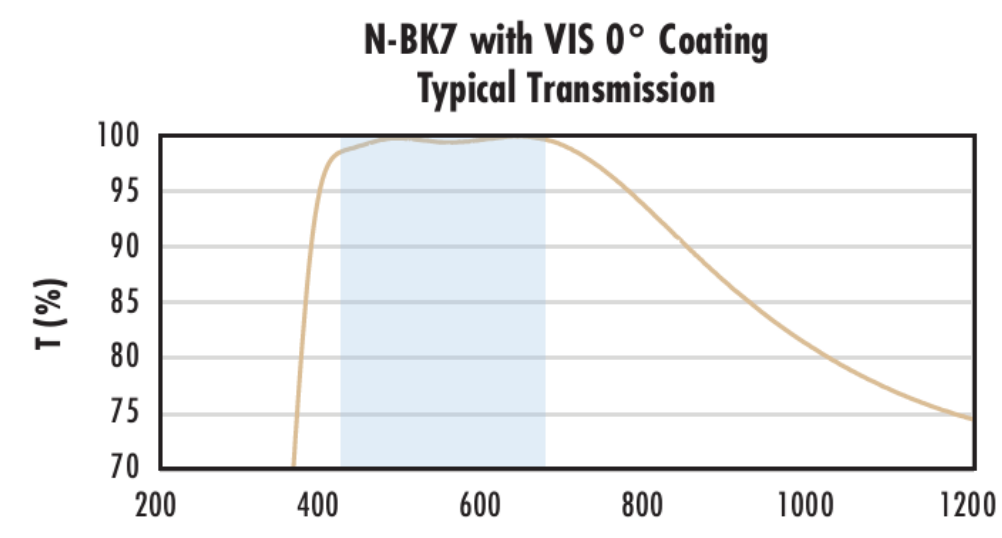

Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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

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

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

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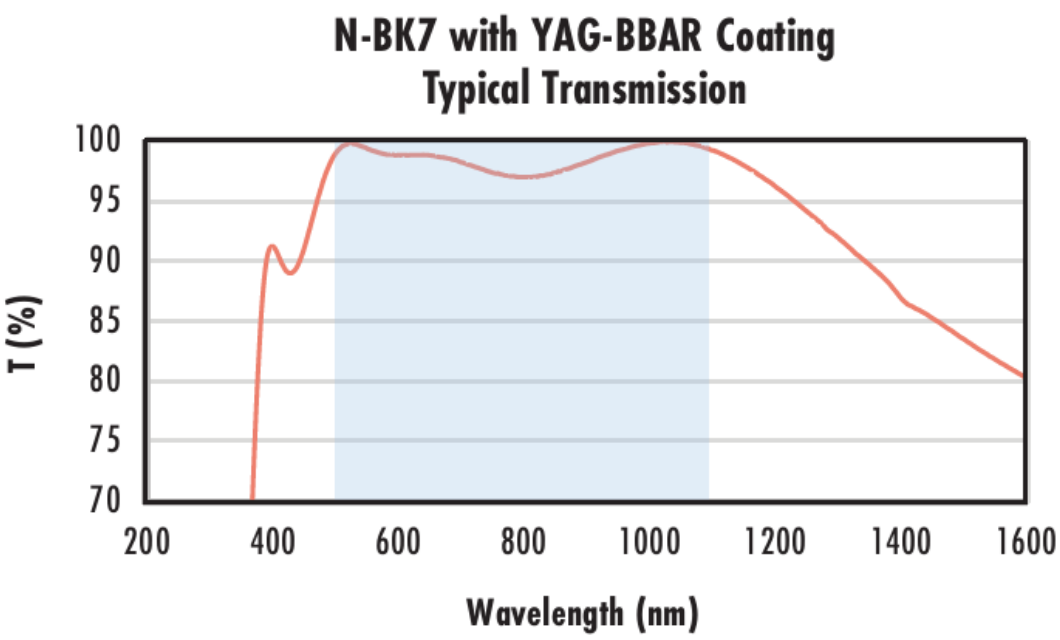
Wavelength (nm)



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

The blue shaded region indicates the coating design 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 for reference only.

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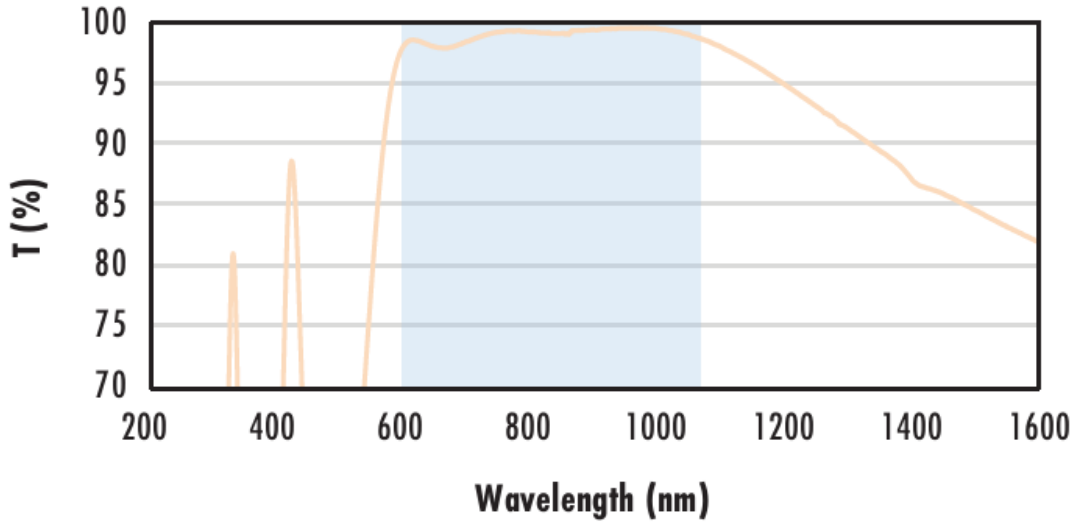

Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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

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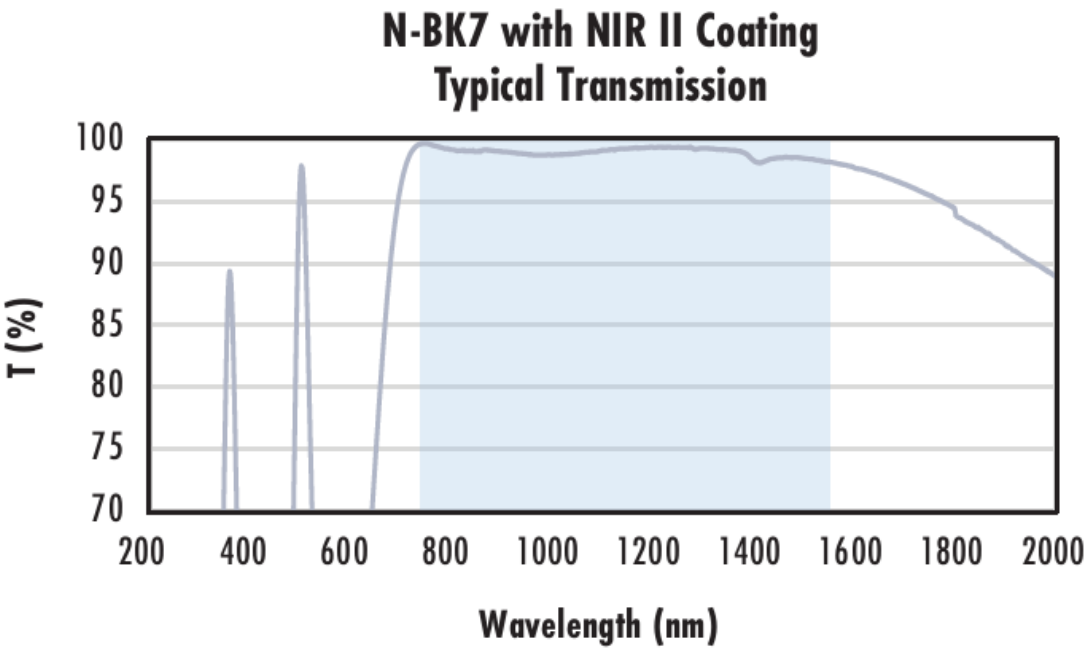

Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

The blue shaded region indicates the coating design 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 for reference only.

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CUSTOM

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

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COMPATIBLE MOUNTS