

TECHSPEC® 100mm Dia., 6mm Thick, NIR II Coated λ /4 N-BK7 Window



Stock #29-589 2 In Stock

-

1

+

£500^{.00}

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Volume Pricing	
Qty 1-5	£500.00 each
Qty 6-25	£399.20 each
Qty 26-49	£374.40 each
Need More?	Request Quote

! Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Protective Window

Type:

Surface Flatness is specified per inch

Note:

Physical & Mechanical Properties

90.00

Clear Aperture CA (mm):

100.00 +0.0/-0.25	Diameter (mm):
6.00 ±0.20	Thickness (mm):
<1	Parallelism (arcmin):
Protective as needed	Bevel:
90	Clear Aperture (%):
Fine Ground	Edges:
0.21	Poisson's Ratio:
82	Young's Modulus (GPa):
610.00	Knoop Hardness (kg/mm²):

Optical Properties	
NIR II (750-1550nm)	Coating:
N-BK7	Substrate: □
1.516	Index of Refraction (n _d):
60-40	Surface Quality:
64.17	Abbe Number (v _d):
Coating Specification: R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm	
750 - 1550	Wavelength Range (nm):
λ/4	Surface Flatness (P-V):
Damage Threshold, By Design: 8 J/cm² @ 1064nm, 10ns	

Material Properties	
2.51	Density (g/cm³):
Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C): 7.1 (-30 to +70°C) 8.3 (+20 to +300°C)	

Regulatory Compliance	
View	Certificate of Conformance:

Product Details

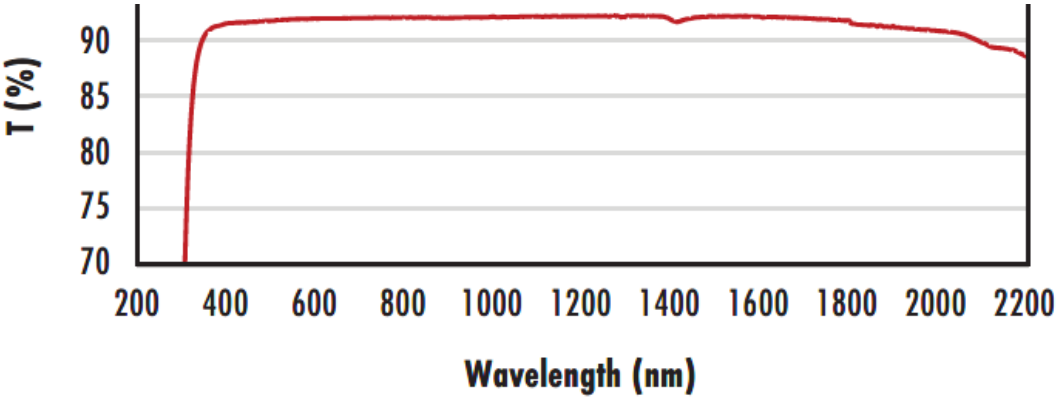
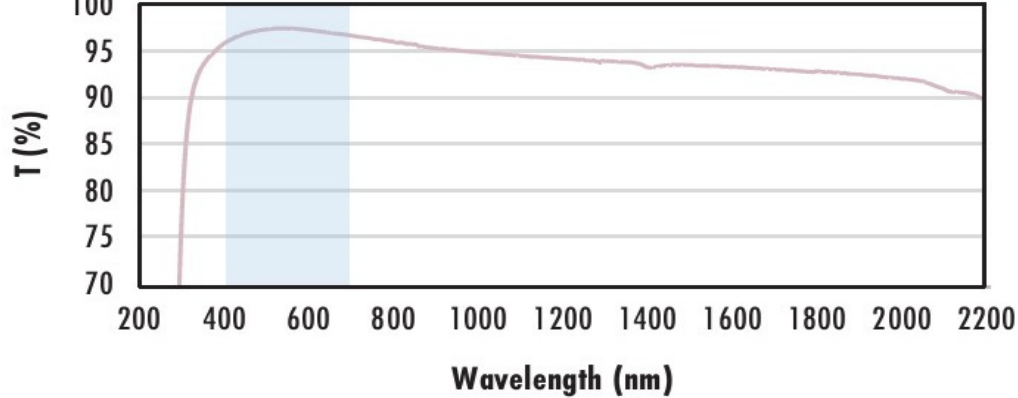
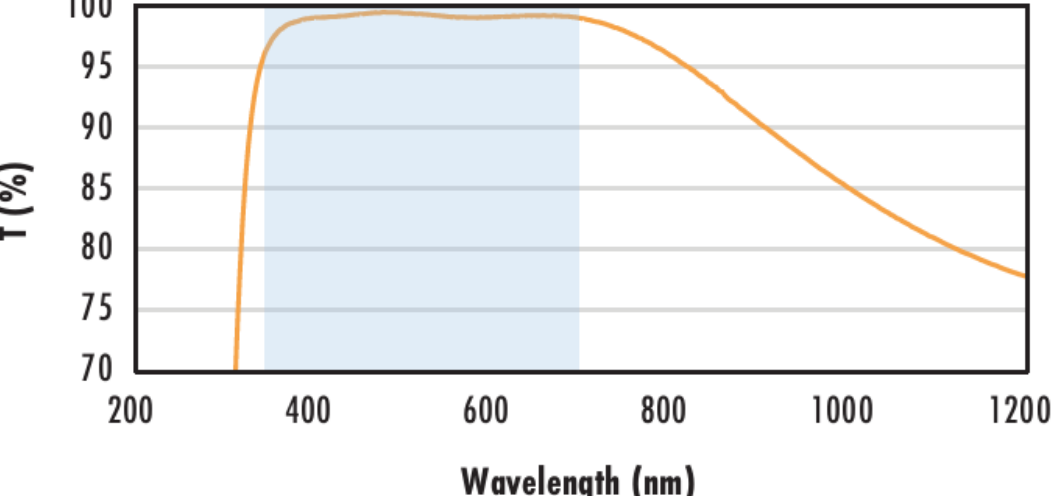
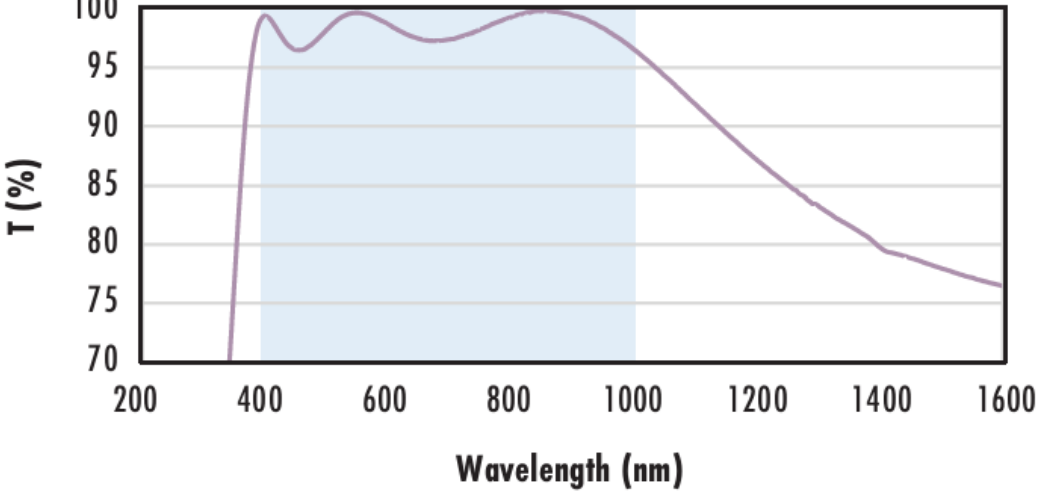
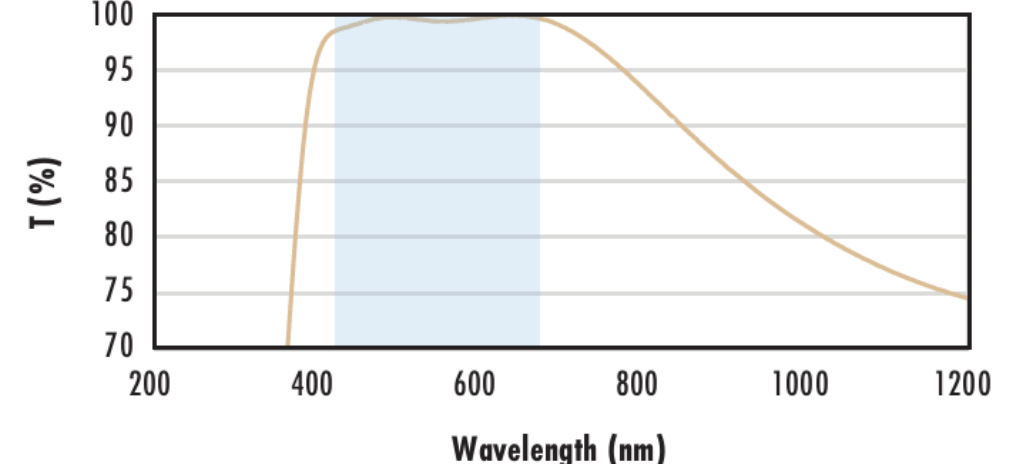
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

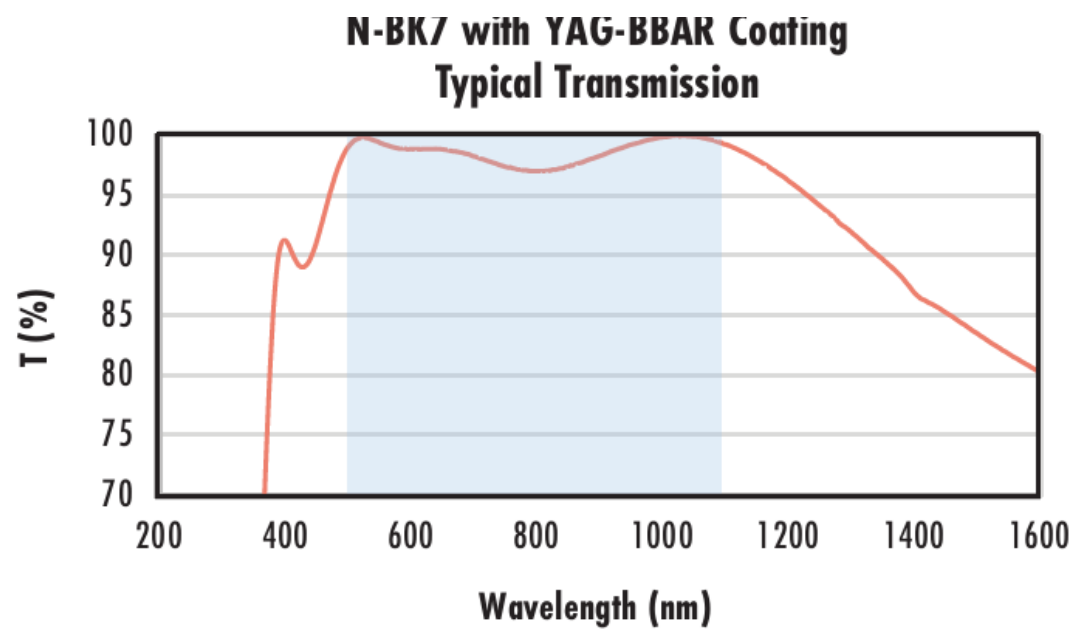
TECHSPEC® λ/4 N-BK7 Precision Windows are ideally suited for industrial and low-power laser applications. The high tolerance design yields minimal beam distortion and scatter. Broadband coating options extend the range of these precision windows through the visible and near-infrared spectra. TECHSPEC®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



	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data
N-BK7 with MgF₂ Coating Typical Transmission 	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 wavelength range, with the following specification: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7) Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with VIS-EXT Coating Typical Transmission 	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 wavelength range, with the following specification: $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with VIS-NIR Coating Typical Transmission 	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 wavelength range, with the following specification: $R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with VIS 0° Coating Typical Transmission 	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 wavelength range, with the following specification: $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data



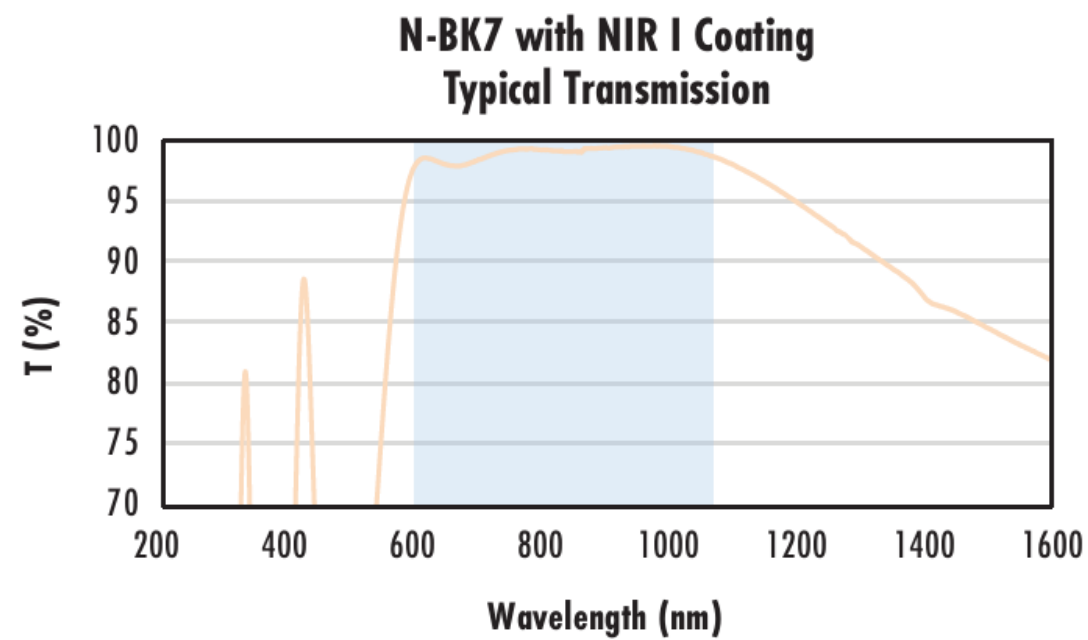
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$$R_{\text{abs}} \leq 0.25\% \text{ @ } 532\text{nm}$$
$$R_{\text{abs}} \leq 0.25\% \text{ @ } 1064\text{nm}$$
$$R_{\text{avg}} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$$

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

[Click Here to Download Data](#)



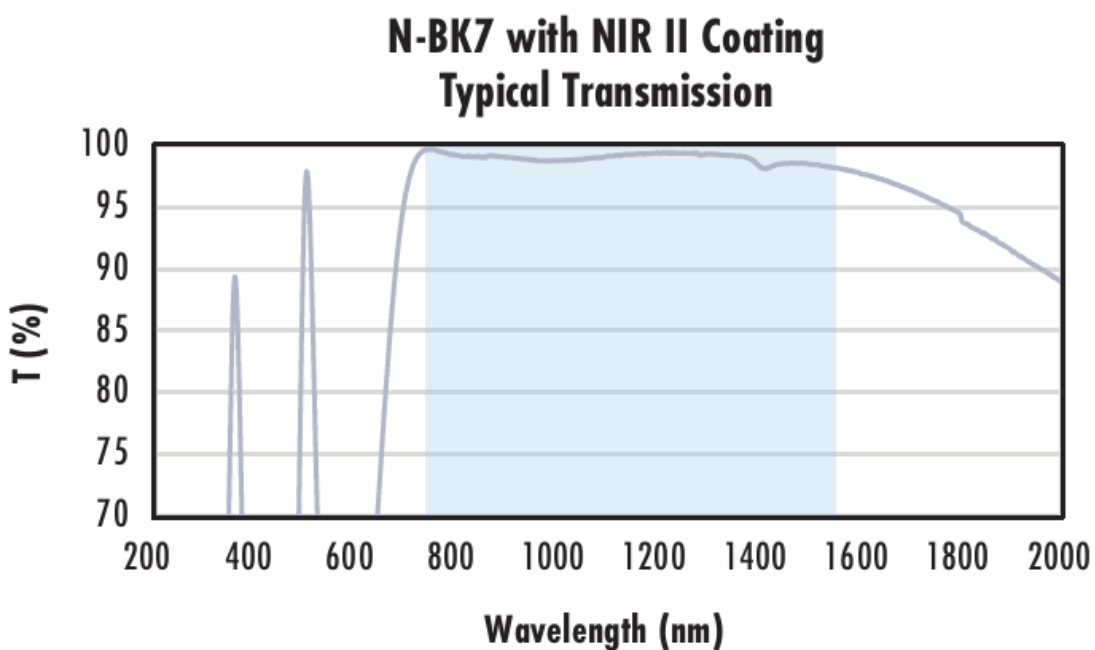
Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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

[Click Here to Download Data](#)



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 wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

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

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).