

TECHSPEC[®] 12.5mm Sq., 3mm Thick, VIS-EXT Coated, λ /4 N-BK7 Window



Stock #13-291 7 In Stock

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1

+

€101^{.00}

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Volume Pricing	
Qty 1-5	€101,00 each
Qty 6-25	€81,50 each
Qty 26-49	€76,00 each
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Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Bevel:

Protective as needed

Clear Aperture (%):

90

11.25 x 11.25	Clear Aperture CA (mm):
12.50 x 12.50	Dimensions (mm):
3.00 ±0.20	Thickness (mm):
Fine Ground	Edges:
610.00	Knoop Hardness (kg/mm²):
<1	Parallelism (arcmin):
0.21	Poisson's Ratio:
82	Young's Modulus (GPa):
12.50	Length (mm):
12.50	Width (mm):

Optical Properties	
64.17	Abbe Number (v _d):
VIS-EXT (350-700nm)	Coating:
R _{avg} <0.5% @ 350 - 700nm	Coating Specification:
1.516	Index of Refraction (n _d):
N-BK7	Substrate:
λ/4	Surface Flatness (P-V):
60-40	Surface Quality:
350 - 700	Wavelength Range (nm):

5 J/cm² @ 532nm, 10ns	Damage Threshold, By Design: □
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Material Properties	
7.1 (-30 to +70°C) 8.3 (+20 to +300°C)	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):
2.51	Density (g/cm³):

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

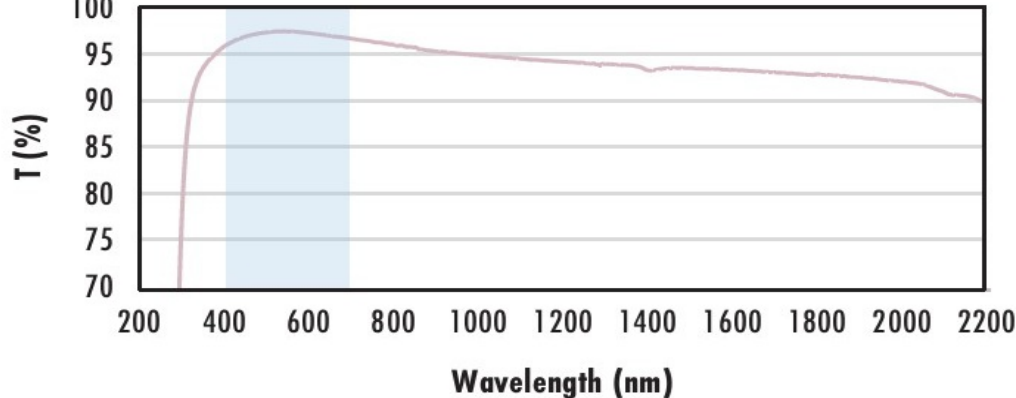
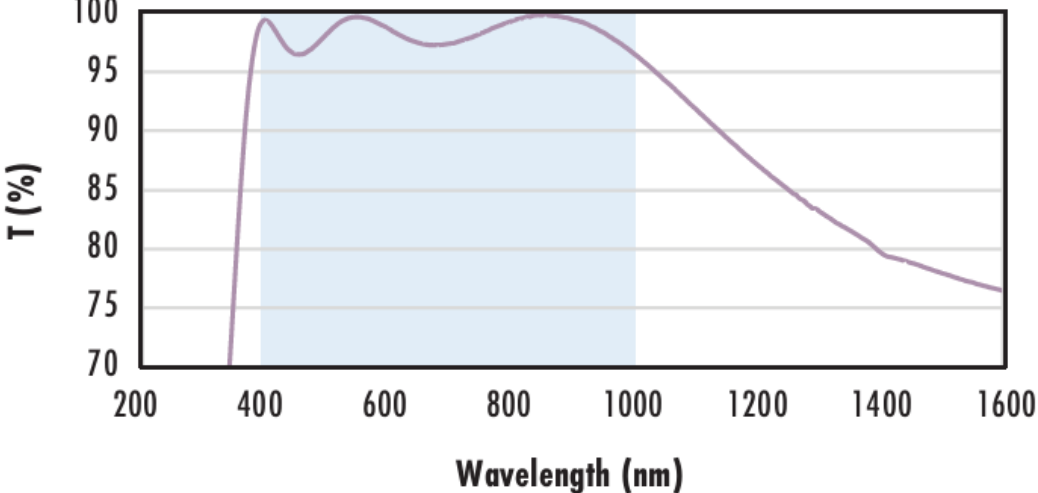
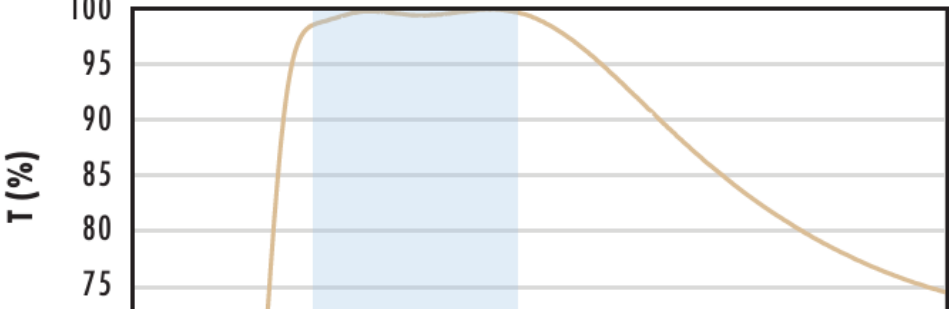
Product Details

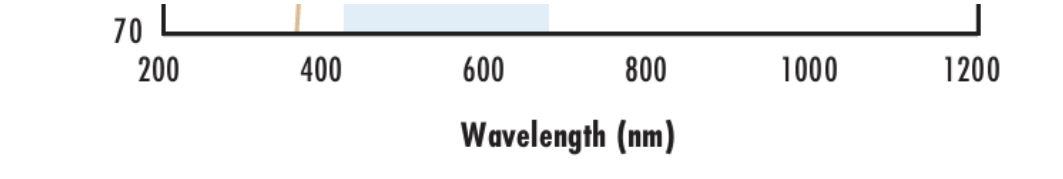
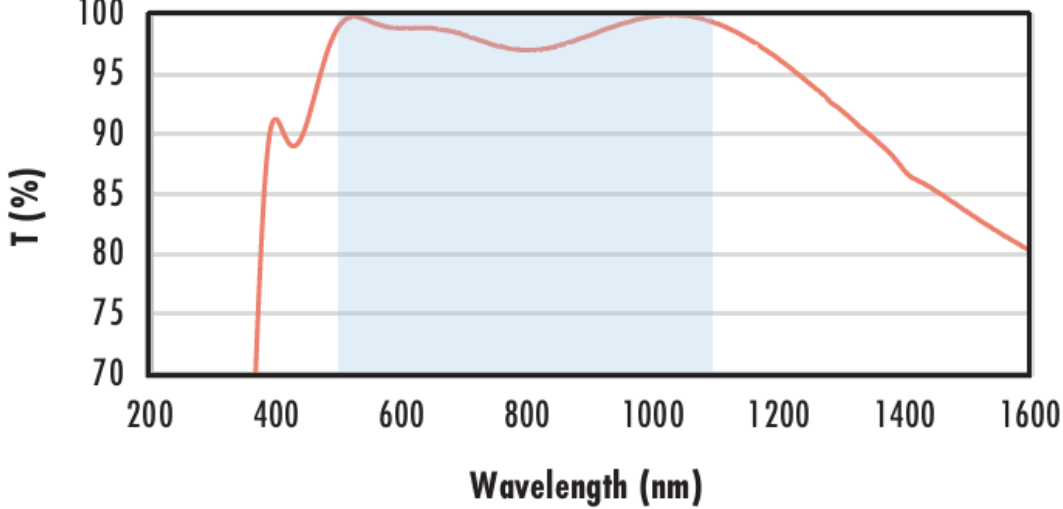
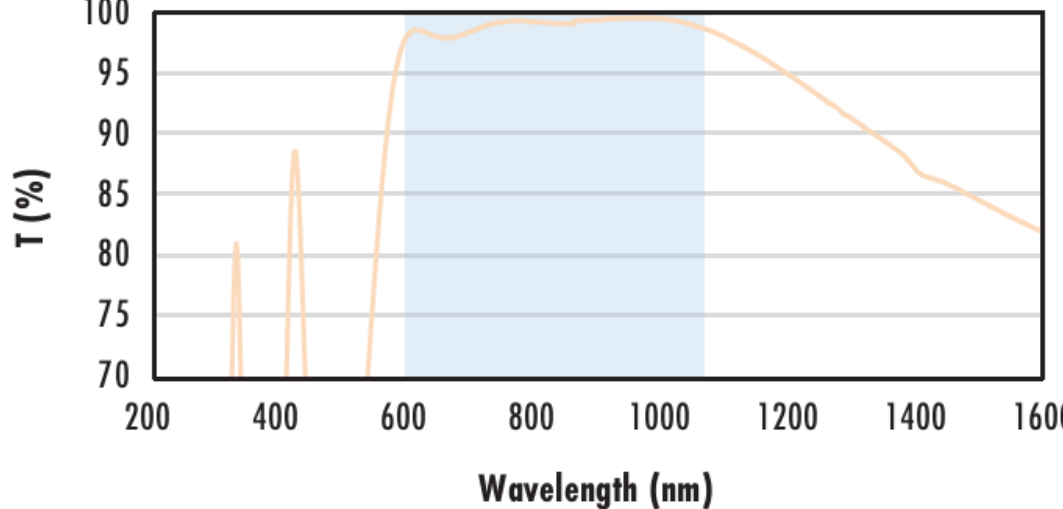
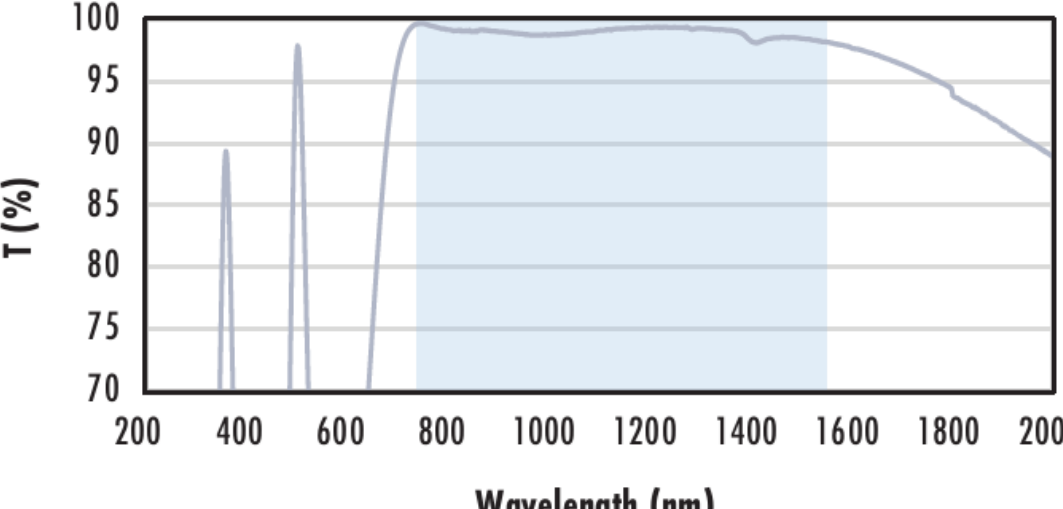
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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

Uncoated N-BK7 Typical Transmission  A line graph showing the typical transmission of a 3mm thick, uncoated N-BK7 window. The y-axis is labeled 'T (%)' and ranges from 70 to 100 in increments of 5. The x-axis is labeled 'Wavelength (nm)' and ranges from 200 to 2200 in increments of 200. The transmission curve starts at approximately 70% at 300 nm, rises sharply to about 92% by 400 nm, and then remains relatively flat, slightly decreasing to about 88% at 2200 nm.	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  A line graph showing the typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI. The y-axis is labeled 'T (%)' and ranges from 70 to 100 in increments of 5. The x-axis is labeled 'Wavelength (nm)' and ranges from 200 to 2200 in increments of 200. The transmission curve starts at approximately 70% at 300 nm, rises to about 98% at 400 nm, and then gradually decreases to about 90% at 2200 nm. A blue shaded region highlights the coating design wavelength range from 400 nm to 700 nm.	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  A line graph showing the typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI. The y-axis is labeled 'T (%)' and ranges from 70 to 100 in increments of 5. The x-axis is labeled 'Wavelength (nm)' and ranges from 200 to 1200 in increments of 200. The transmission curve starts at approximately 70% at 300 nm, rises to about 98% at 400 nm, and then gradually decreases to about 78% at 1200 nm. A blue shaded region highlights the coating design wavelength range from 350 nm to 700 nm.	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  A line graph showing the typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI. The y-axis is labeled 'T (%)' and ranges from 70 to 100 in increments of 5. The x-axis is labeled 'Wavelength (nm)' and ranges from 200 to 1600 in increments of 200. The transmission curve starts at approximately 70% at 300 nm, rises to about 98% at 400 nm, and then gradually decreases to about 75% at 1600 nm. A blue shaded region highlights the coating design wavelength range from 400 nm to 1000 nm.	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  A line graph showing the typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI. The y-axis is labeled 'T (%)' and ranges from 75 to 100 in increments of 5. The x-axis is labeled 'Wavelength (nm)' and ranges from 200 to 1600 in increments of 200. The transmission curve starts at approximately 75% at 300 nm, rises to about 98% at 400 nm, and then gradually decreases to about 75% at 1600 nm. A blue shaded region highlights the coating design wavelength range from 425 nm to 675 nm.	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

	
N-BK7 with YAG-BBAR Coating Typical Transmission 	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: $R_{abs} \leq 0.25\% @ 532\text{nm}$ $R_{abs} \leq 0.25\% @ 1064\text{nm}$ $R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with NIR I Coating Typical Transmission 	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: $R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
N-BK7 with NIR II Coating Typical Transmission 	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: $R_{abs} \leq 1.5\% @ 750 - 800\text{nm}$ $R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}$ $R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}$ 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](#).

Compatible Mounts