

TECHSPEC® 15mm Dia., 3mm Thick, VIS-NIR Coated λ/4 N-BK7 WindowStock #45-659 [CONTACT US](#)[-](#) 1 [+](#)£82^{.40}[ADD TO CART](#)

Volume Pricing	
Qty 1-5	£82.40 each
Qty 6-25	£66.40 each
Qty 26-49	£61.60 each
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! Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS**General**

Type:

Protective Window

Physical & Mechanical Properties

Protective as needed	Bevel:
90	Clear Aperture (%):
13.50	Clear Aperture CA (mm):
15.00 +0.0/-0.25	Diameter (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):

Optical Properties

64.17	Abbe Number (ν_d):
VIS-NIR (400-1000nm)	Coating:
$R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870 \text{ nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$	Coating Specification:
1.516	Index of Refraction (n_d):
N-BK7	Substrate:
λ/4	Surface Flatness (P-V):
60-40	Surface Quality:
400 - 1000	Wavelength Range (nm):
5 J/cm ² @ 532nm, 10ns	Damage Threshold, By Design: <input type="checkbox"/>

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:
Compliant	Reach 219:
View	Certificate of Conformance:

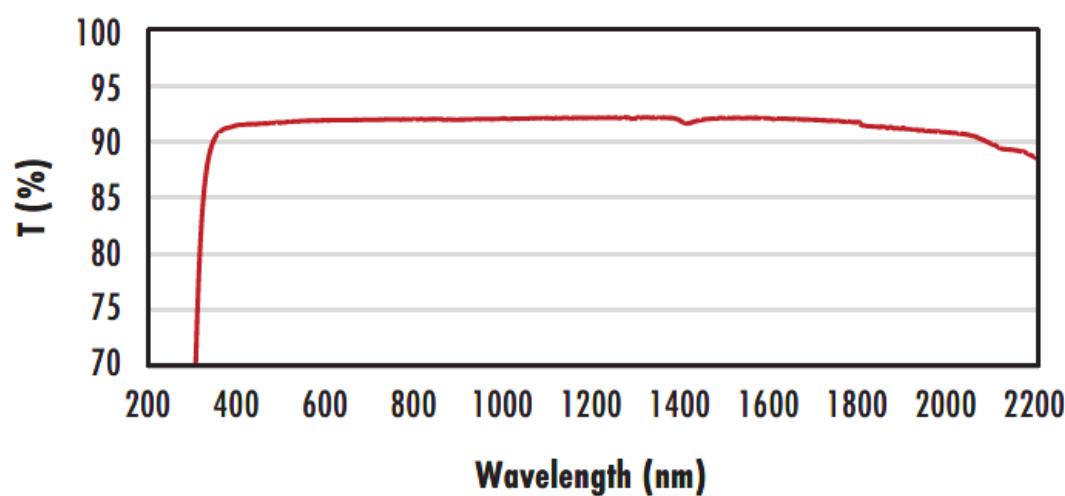
PRODUCT DETAILS

- 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.

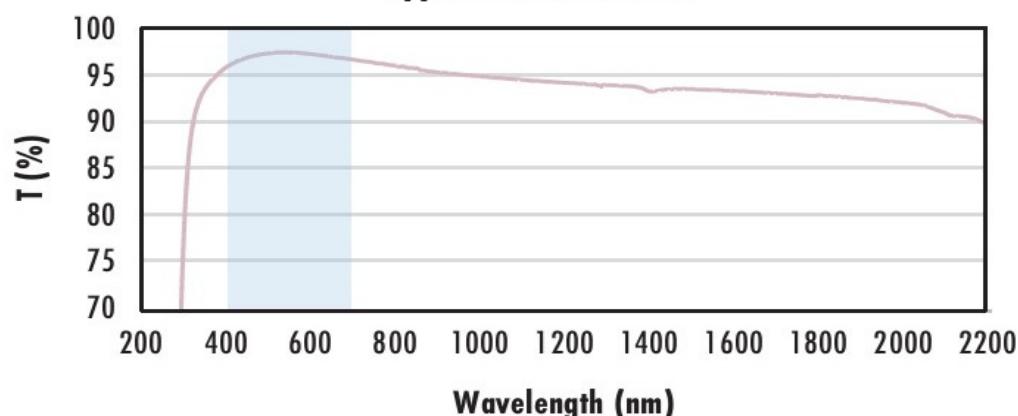
Note: New additions to this product family may be specified with a transmitted wavefront distortion (TWD) specification instead of a surface flatness. For more information on the difference between these two specifications, see our application note on [Understanding Optical Windows](#).

TECHNICAL INFORMATION

Uncoated N-BK7 Typical Transmission

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

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**N-BK7 with MgF_2 Coating
Typical Transmission**

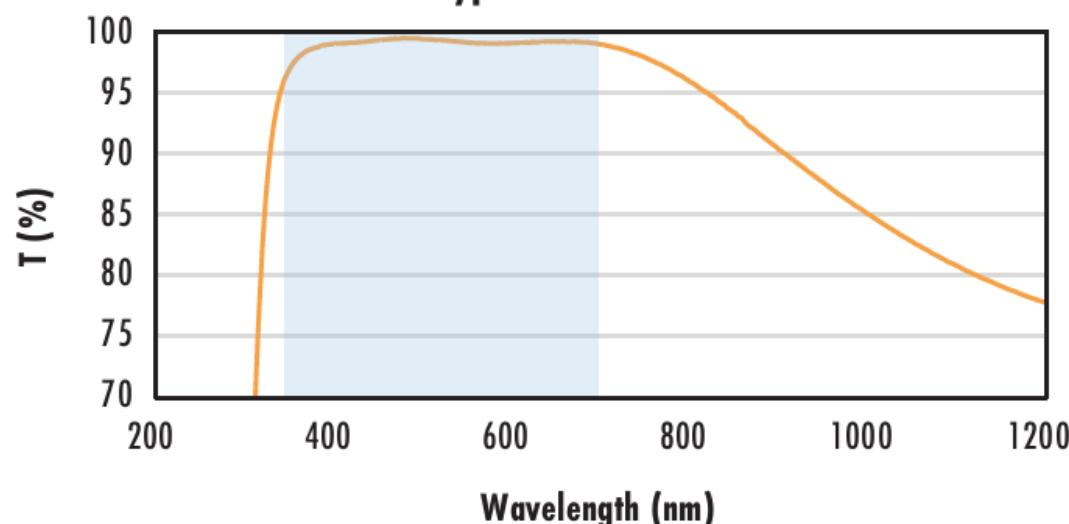
Typical transmission of a 3mm thick N-BK7 window with MgF_2 (400-700nm) coating at 0° AOI.

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

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

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

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**N-BK7 with VIS-EXT Coating
Typical Transmission**

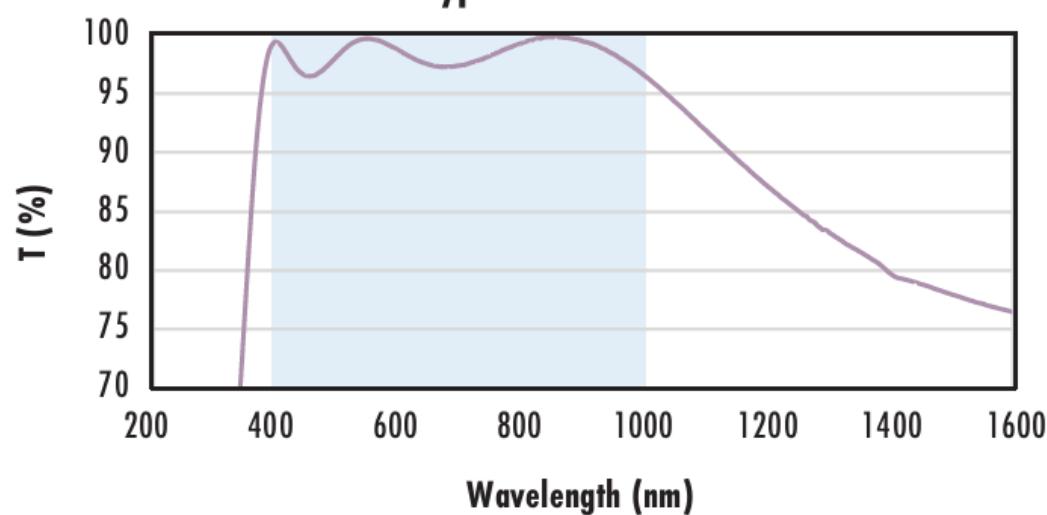
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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:

$$R_{\text{abs}} \leq 0.25\% \text{ @ 880nm}$$

$$R_{\text{avg}} \leq 1.25\% \text{ @ 400 - 870nm}$$

$$R_{\text{avg}} \leq 1.25\% \text{ @ 890 - 1000nm}$$

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

[Click Here to Download Data](#)

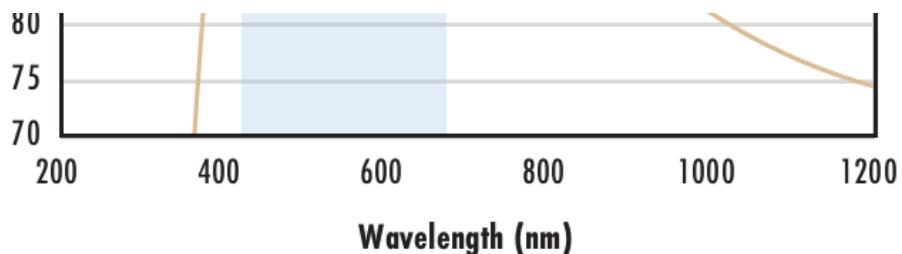
**N-BK7 with VIS 0° Coating
Typical Transmission**

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:

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

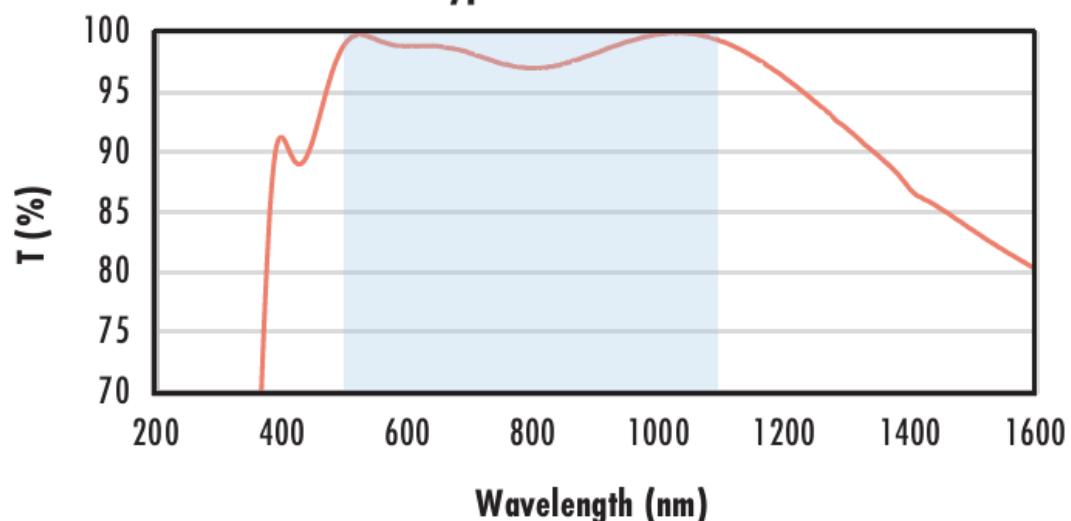
Data outside this range is not guaranteed and is for reference only.



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

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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.

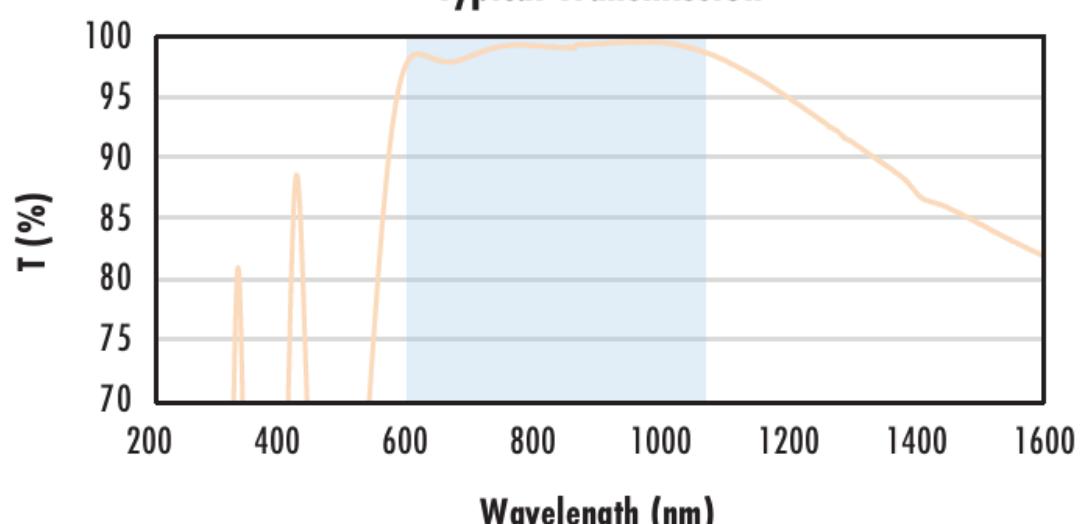
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$\begin{aligned} R_{abs} &\leq 0.25\% @ 532nm \\ R_{abs} &\leq 0.25\% @ 1064nm \\ R_{avg} &\leq 1.0\% @ 500 - 1100nm \end{aligned}$$

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

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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.

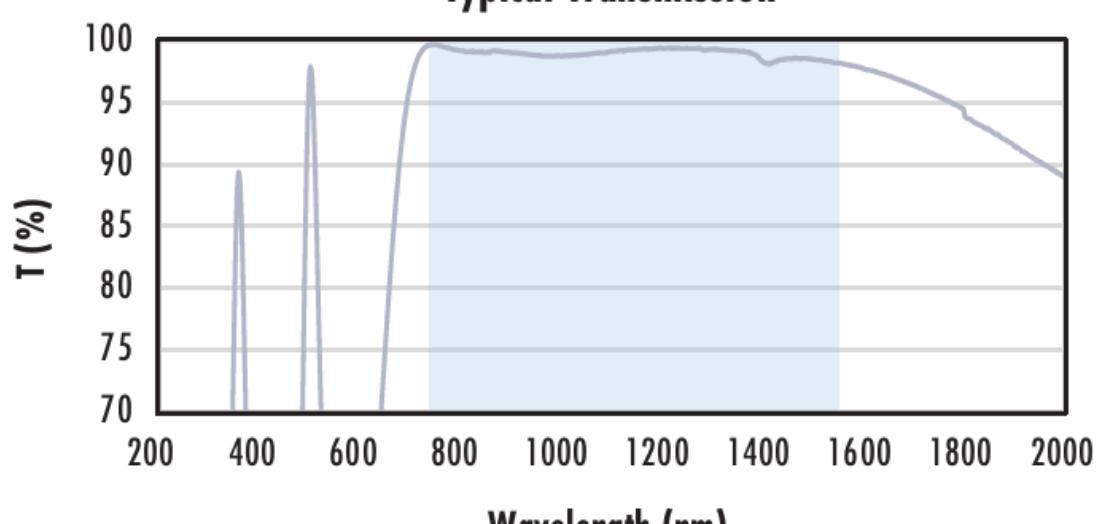
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

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

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COATING CURVES

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
