TECHSPEC® 25mm Dia., 1mm Thick, NIR II Coated λ/4 N-BK7 Window

Stock **#25-801** 10 TO 12 DAYS

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₹6,932

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SPECIFICATIONS

General

Type:	Protective Window

Physical & Mechanical Properties

Bevel: Protective as needed	**Clear Aperture (%):** 90
Clear Aperture CA (mm): 22.50	**Diameter (mm):** 25.00 +0.00/-0.25
Thickness (mm): 1.00 ±0.20	**Edges:** Fine Ground
Knoop Hardness (kg/mm^2): 610	**Parallelism (arcmin):** <1
Poisson's Ratio: 0.206	**Young's Modulus (GPa):** 82

Optical Properties

Abbe Number (v_d): 64.17	**Coating:** NIR II (750-1550nm)
Coating Specification: R_{abs} ≤1.5% @ 750 - 800nm R_{abs} ≤1.0% @ 800 - 1550nm R_{avg} ≤0.7% @ 750 - 1550nm	**Index of Refraction (n_d):** 1.516
Substrate: N-BK7	**Surface Flatness (P-V):** λ/4
Surface Quality: 60-40	**Wavelength Range (nm):** 750 - 1550
Damage Threshold, By Design: 8 J/cm^2 @ 1064nm, 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

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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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

Learn more about our custom manufacturing capabilities or submit an inquiry here.