

TECHSPEC® 50.8mm Dia. x 50.8mm FL, MgF₂ Coated, Plano-Convex LensStock #71-335 **5 In Stock**[Other Coating Options](#) A\$106⁴⁰**ADD TO CART**

Volume Pricing	
Qty 1-10	A\$106.40 each
Qty 11-24	A\$96.00 each
Qty 25-49	A\$84.80 each
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SPECIFICATIONS**General**

Type:

Physical & Mechanical Properties

Diameter (mm): 50.80 +0.0/-0.025

Centering (arcmin): <1

Center Thickness CT (mm): 12.00 ±0.10

Edge Thickness ET (mm): 2.86

Clear Aperture CA (mm): 49.30

Bevel: Protective as needed

Optical Properties

Effective Focal Length EFL (mm): 50.81 @ 587.6nm

Back Focal Length BFL (mm): 44.08

Coating: MgF₂ (400-700nm)

Coating Specification: R_{avg} ≤1.75% @ 400 - 700nm

Substrate: N-SF11

Surface Quality: 40-20

Power (P-V) @ 632.8nm: 1.5λ

Irregularity (P-V) @ 632.8nm: λ/4

Focal Length Tolerance (%): ±1

Radius R₁ (mm): 39.87

f#: 1.00

Numerical Aperture NA: 0.50

Wavelength Range (nm): 400 - 700

Damage Threshold, By Design: 10 J/cm² @ 532nm, 10ns

Regulatory Compliance

Certificate of Conformance:

[View](#)

PRODUCT DETAILS

• AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm

• Designed for 0° Angle of Incidence

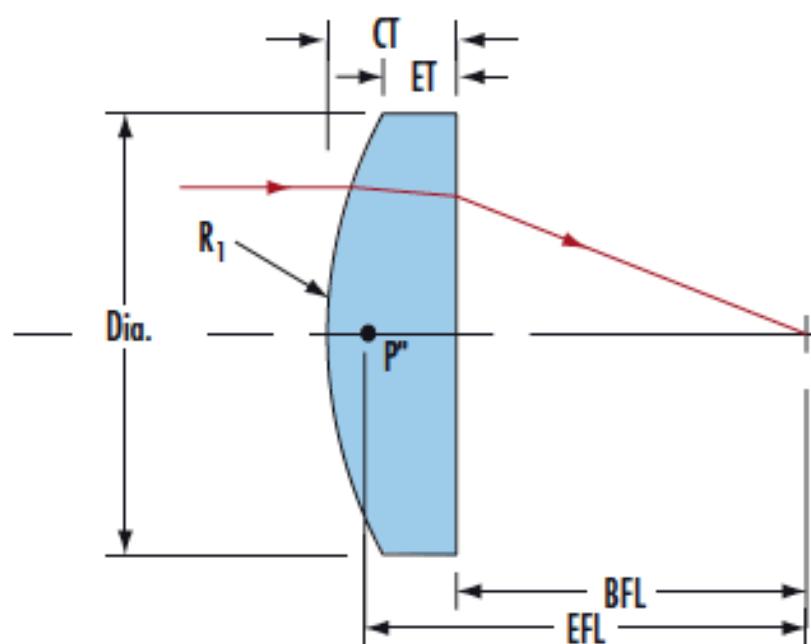
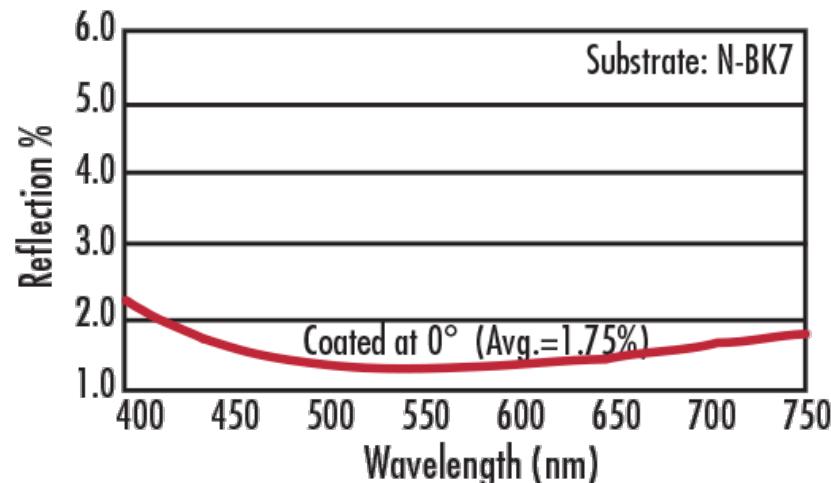
• Various PCX Coating Options: [Uncoated](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)

• Also Available [Pre-Mounted in Engraved C-Mount Housings](#)

TECHSPEC® MgF₂ Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® MgF₂ Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered [uncoated](#) or with broadband anti-reflective (BBAR) coatings, which include [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#).

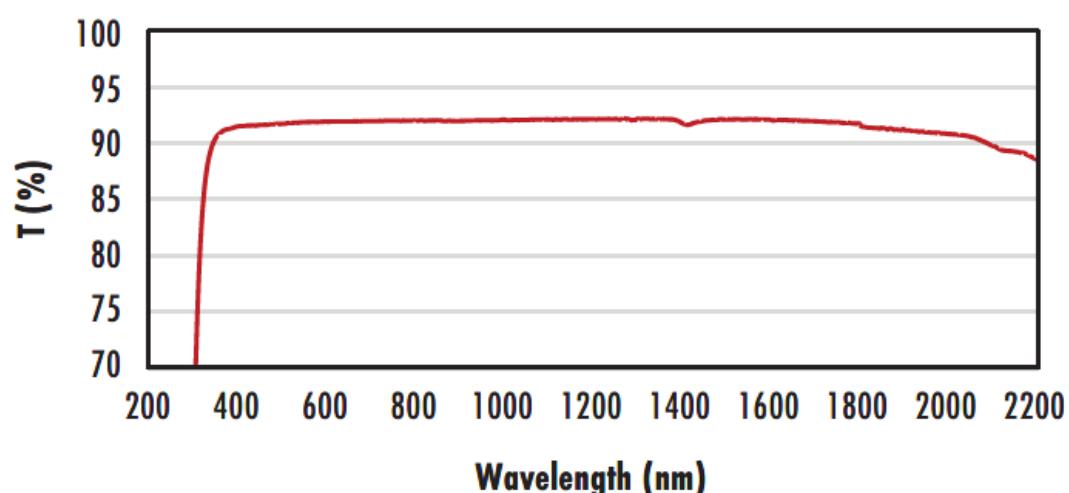
TECHNICAL INFORMATION

MgF₂ Coating
 $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$
 Typ. Energy Density Limit: 10 J/cm² @ 532nm, 10ns



N-BK7

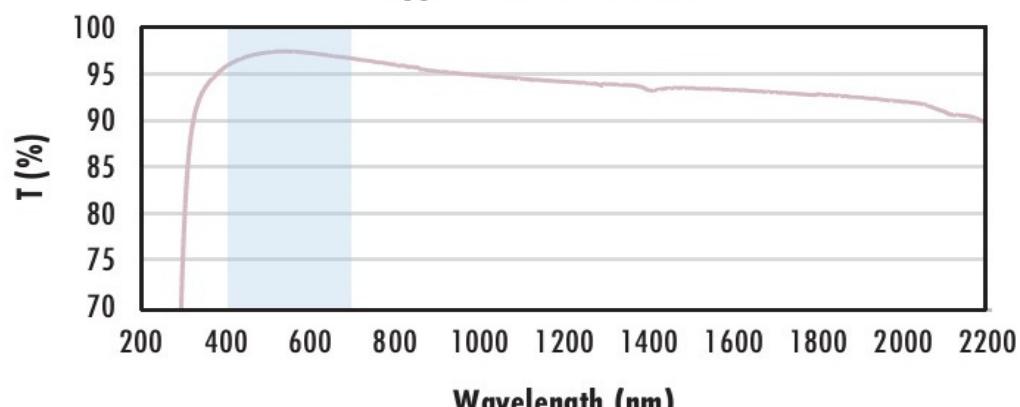
Uncoated N-BK7 Typical Transmission



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

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N-BK7 with MgF₂ Coating Typical Transmission



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

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)

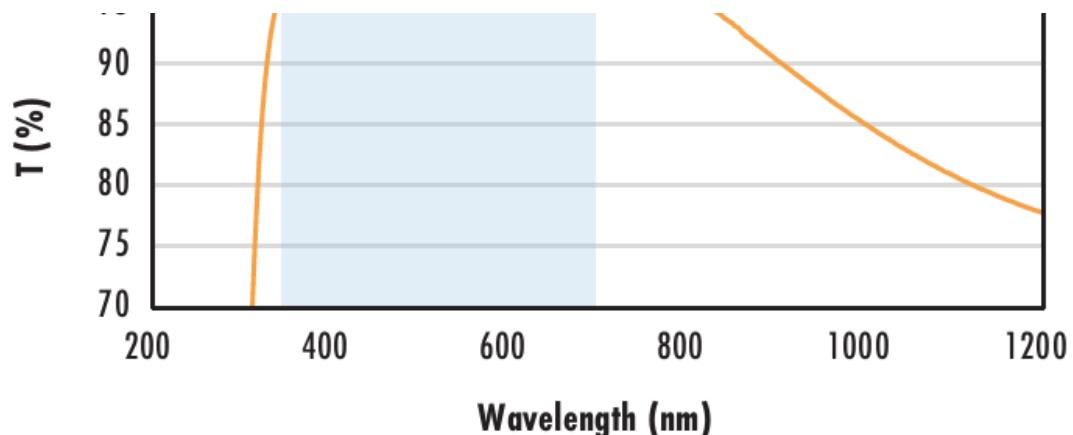
Data outside this range is not guaranteed and is for reference only.

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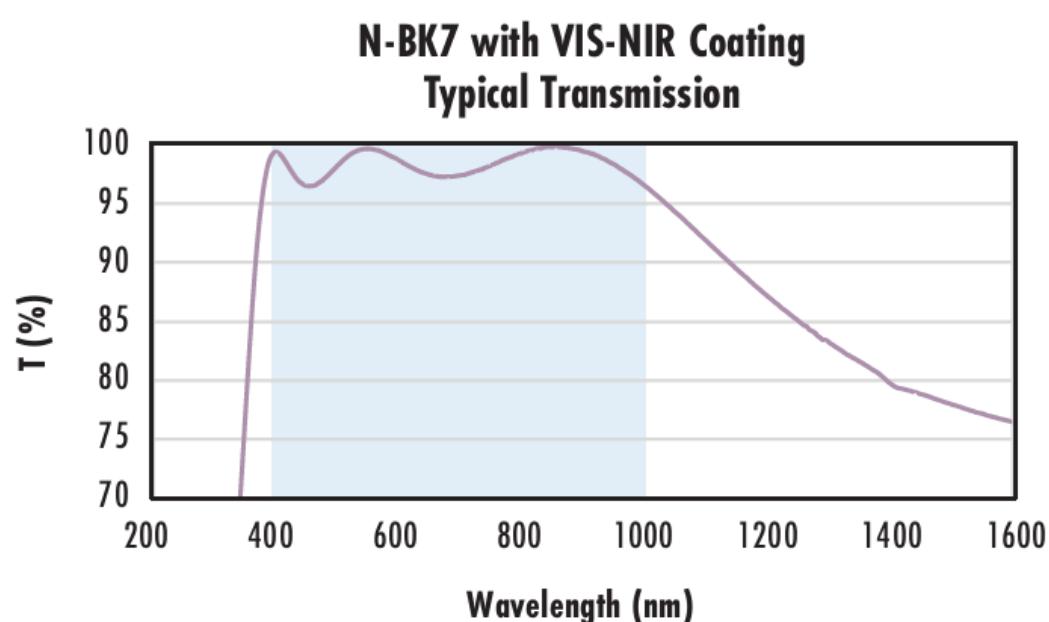
N-BK7 with VIS-EXT Coating Typical Transmission



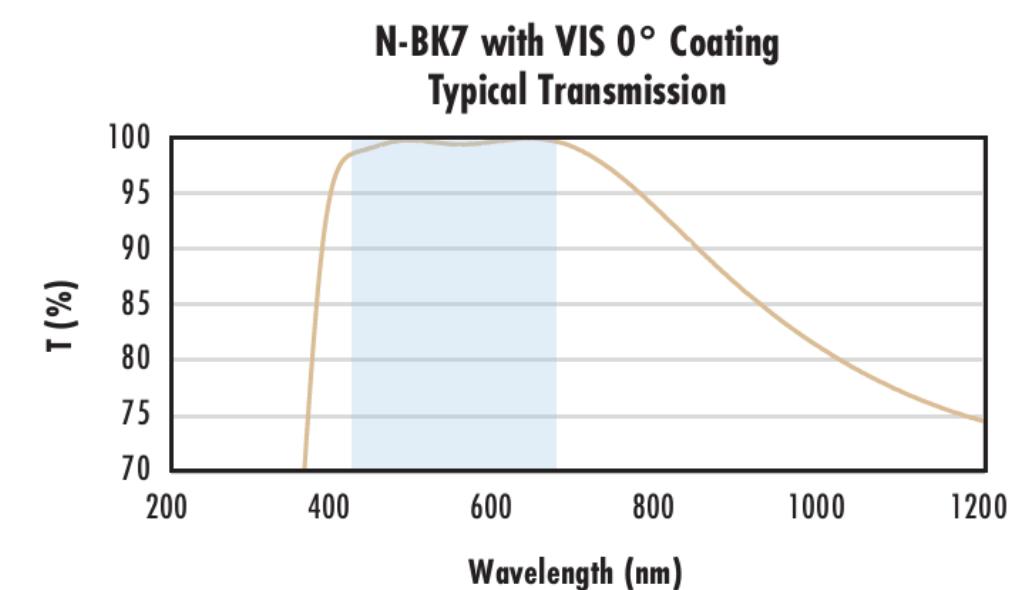
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT



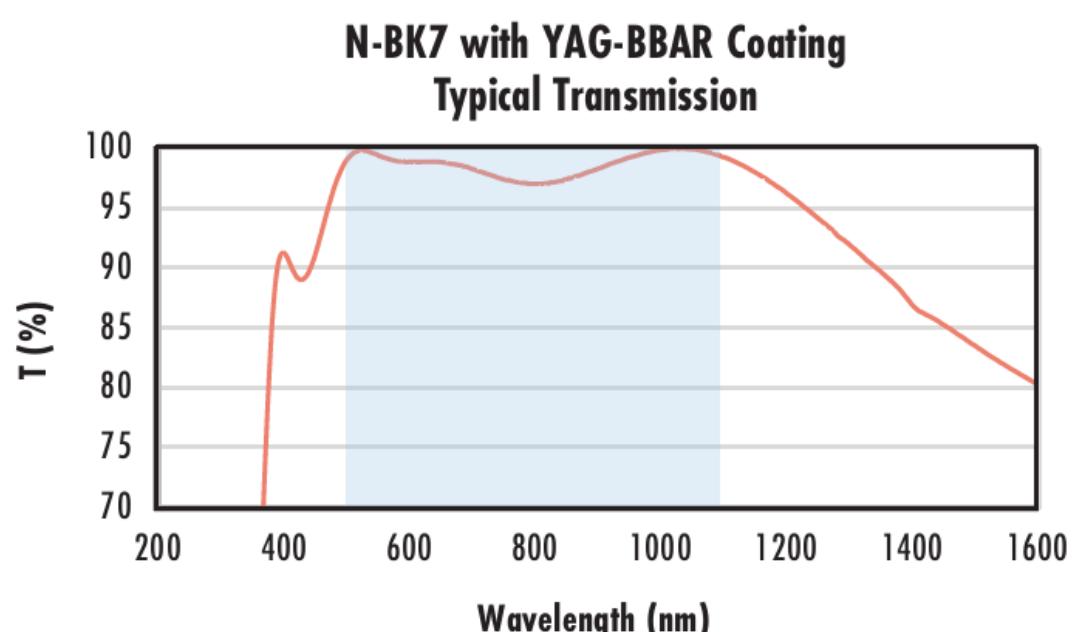
(350-700nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$
 Data outside this range is not guaranteed and is for reference only.
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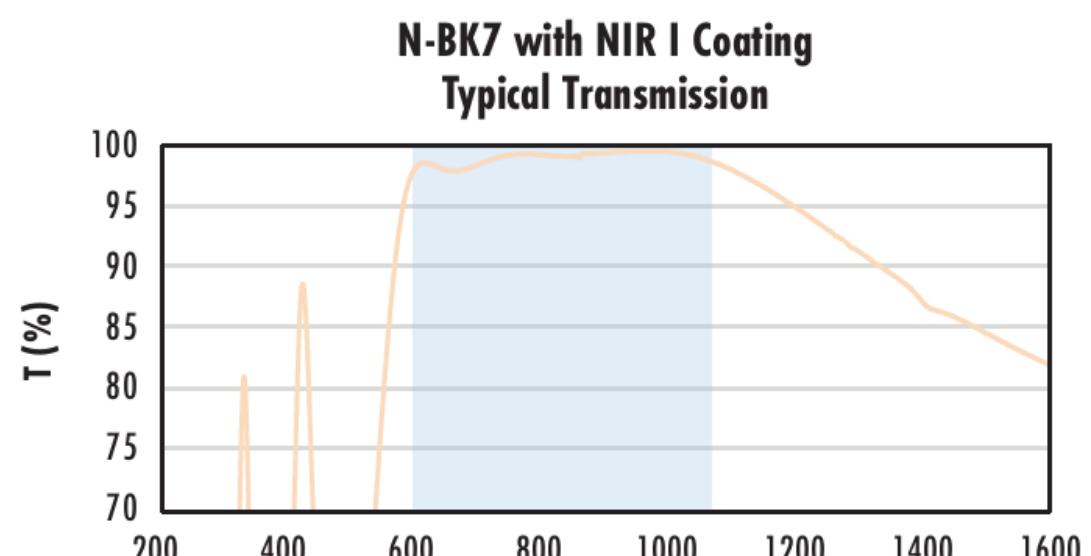
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{abs} \leq 0.25\% @ 880\text{nm}$
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$
 Data outside this range is not guaranteed and is for reference only.
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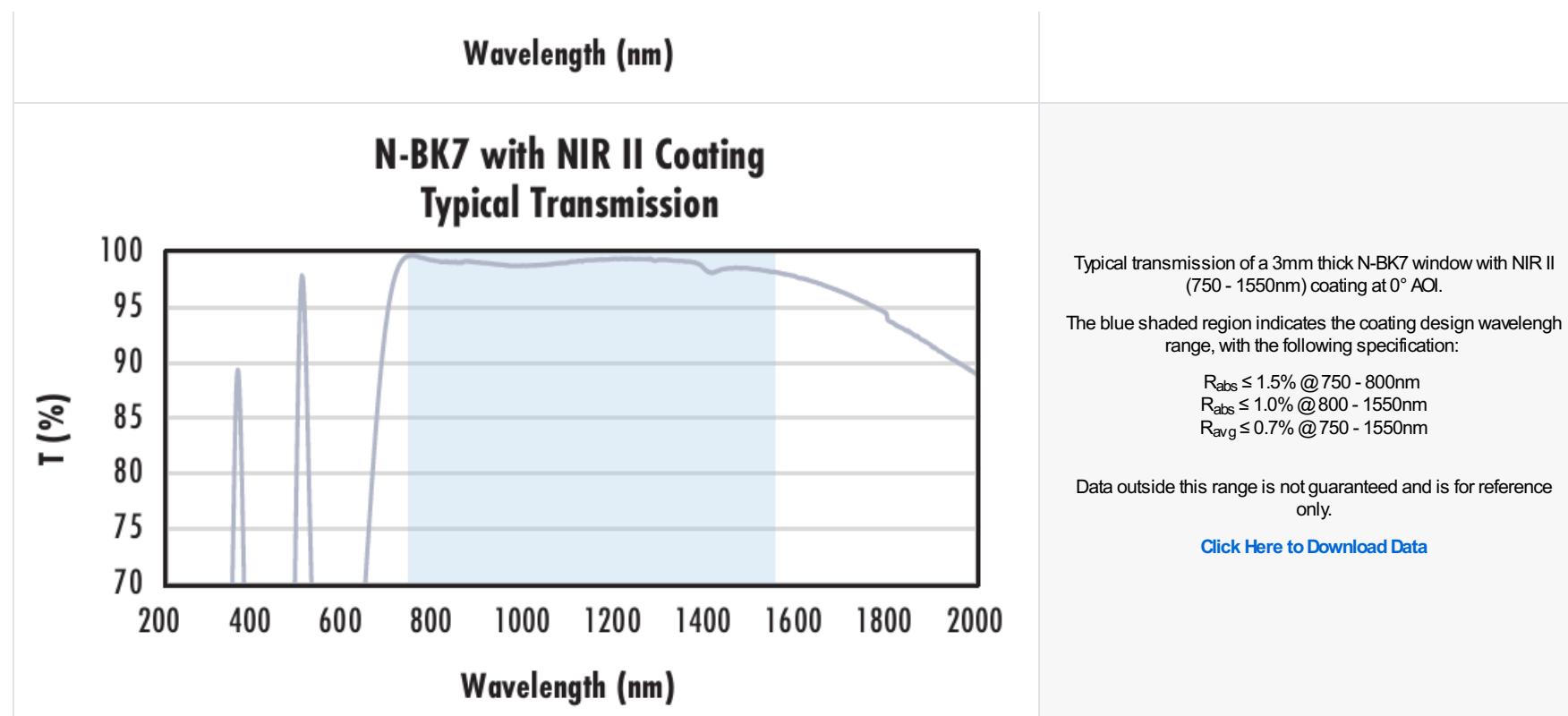
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$
 Data outside this range is not guaranteed and is for reference only.
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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 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.
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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 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.
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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

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