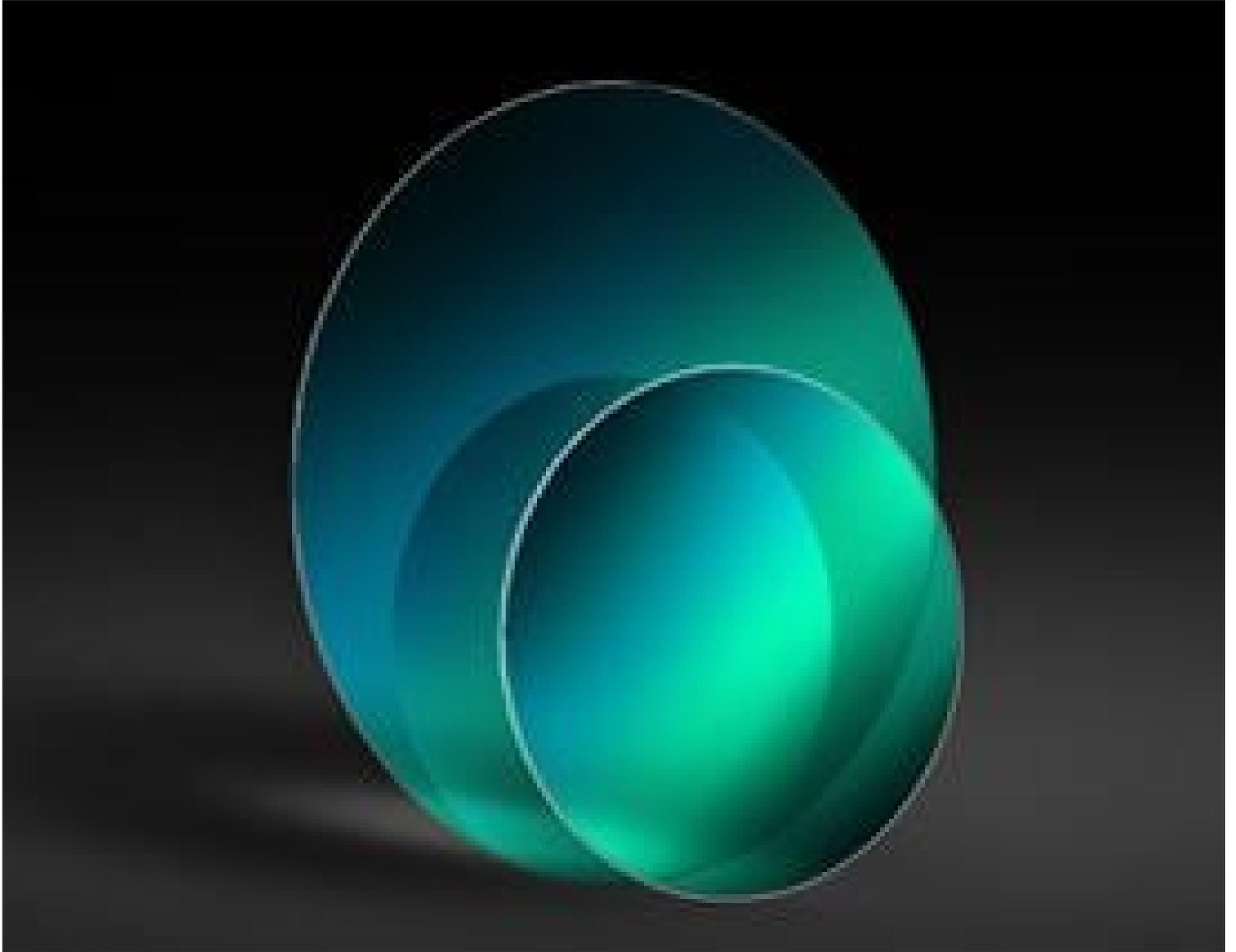


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TECHSPEC® 50mm Diameter VIS 0° Coated, Ultra-Thin N-BK7 Window

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Ultra-Thin N-BK7 Windows

Stock **#83-106** **20+ In Stock**

⊖ 1 ⊕ **A\$374⁰⁰**

ADD TO CART

| Volume Pricing | |
|----------------|-------------------------------|
| Qty 1-5 | A\$374.40 each |
| Qty 6-25 | A\$300.80 each |
| Qty 26-49 | A\$281.60 each |
| Need More? | Request Quote |

Product Downloads

General

Protective Window **Type:**

Physical & Mechanical Properties

Protective as needed **Bevel:**

Clear Aperture CA (mm):

| | |
|-------------------|---------------------------------------|
| 45.00 | |
| 50.00 +0.00/-0.10 | Diameter (mm): |
| 0.20 ±0.025 | Thickness (mm): |
| Fine Ground | Edges: |
| 610.00 | Knoop Hardness (kg/mm ²): |
| <30 | Parallelism (arcsec): |
| 0.21 | Poisson's Ratio: |
| 82 | Young's Modulus (GPa): |

Optical Properties

| | |
|--------------------------------------|---|
| 64.17 | Abbe Number (v _d): |
| VIS 0° (425-675nm) | Coating: |
| R _{avg} ≤0.4% @ 425 - 675nm | Coating Specification: |
| 1.516 | Index of Refraction (n _d): |
| N-BK7 | Substrate: |
| 40-20 | Surface Quality: |
| λ/2 | Transmitted Wavefront, P-V: |
| 425 - 675 | 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/cm ³): |

Regulatory Compliance

| | |
|-----------|-----------------------------|
| Compliant | RoHS 2015: |
| Compliant | Reach 219: |
| View | Certificate of Conformance: |

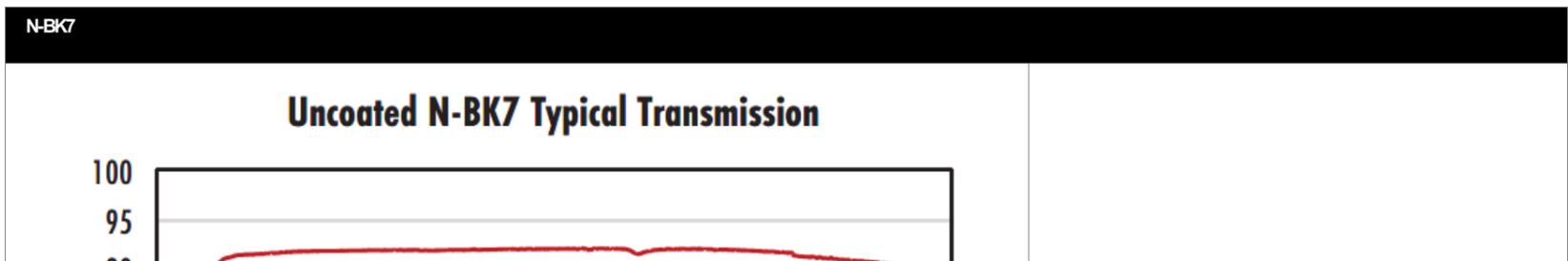
Product Details

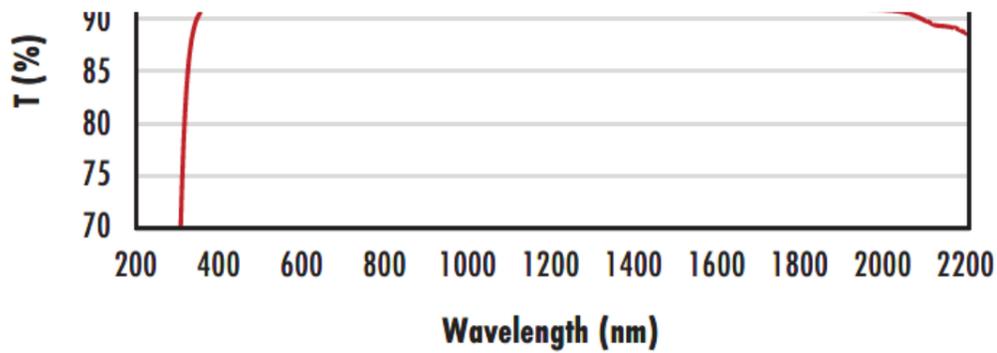
- Ultra-Thin 0.20mm Thickness
- Precision N-BK7 Substrate
- Extremely Lightweight

TECHSPEC® Ultra-Thin N-BK7 Windows are our thinnest windows available and are at least 1/10 the thickness of our traditional N-BK7 windows. Their extremely thin designs make them ideal for both weight and size-sensitive applications. Additionally, their high tolerance design yields minimal beam distortion and scatter. TECHSPEC® Ultra-Thin N-BK7 Windows are available uncoated or with a MgF2 anti-reflection coating. For custom sizes or coating options, please contact our [Sales Department](#).

Note: The Ultra-Thin N-BK7 Windows are very fragile. Handle these windows with care.

Technical Information

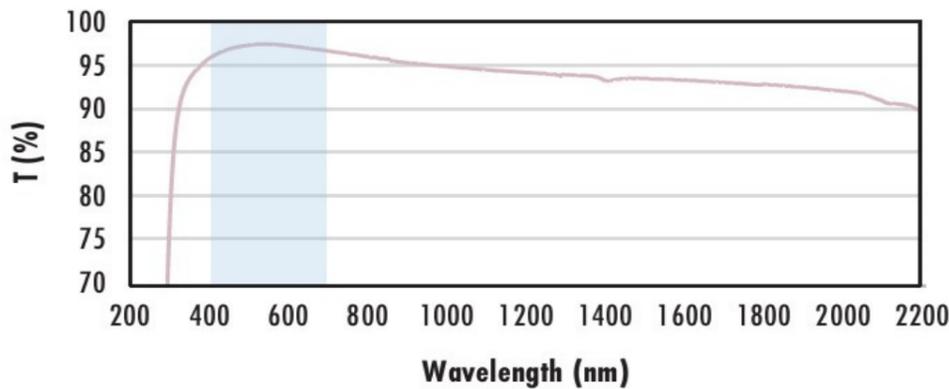




Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

[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.

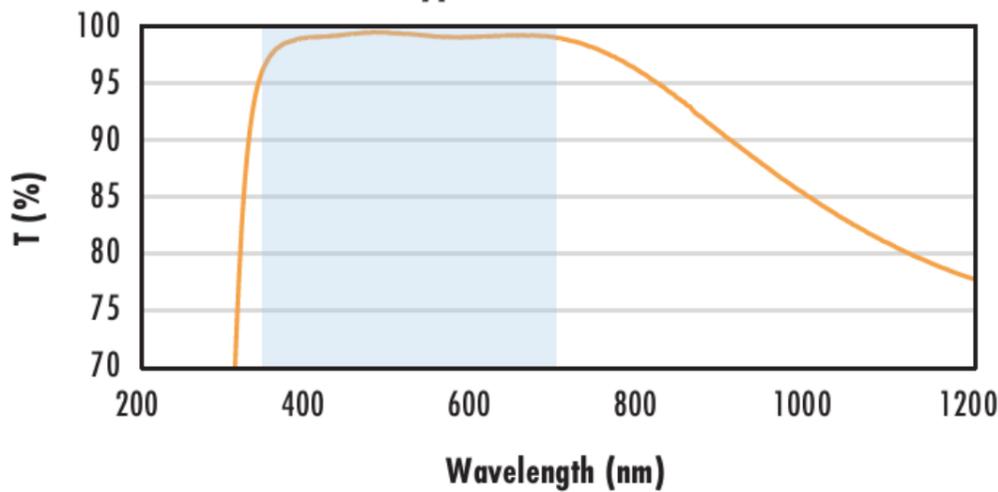
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

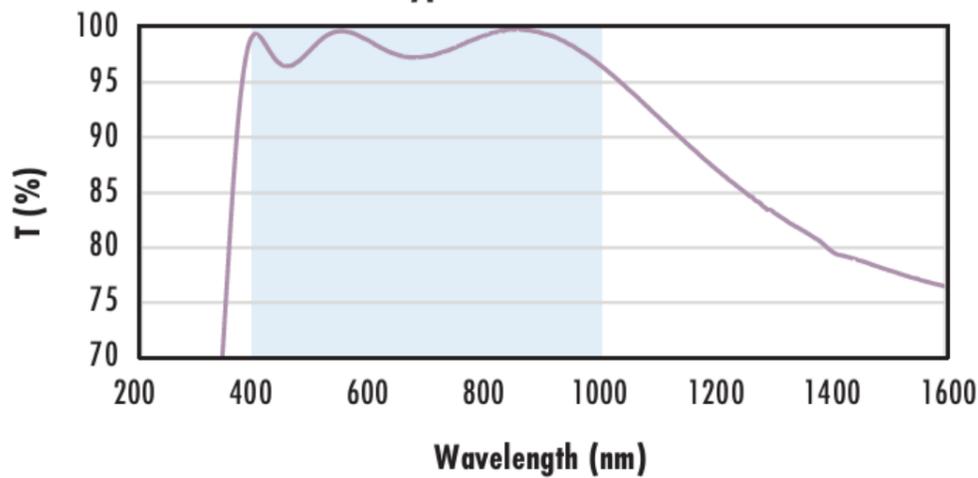
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

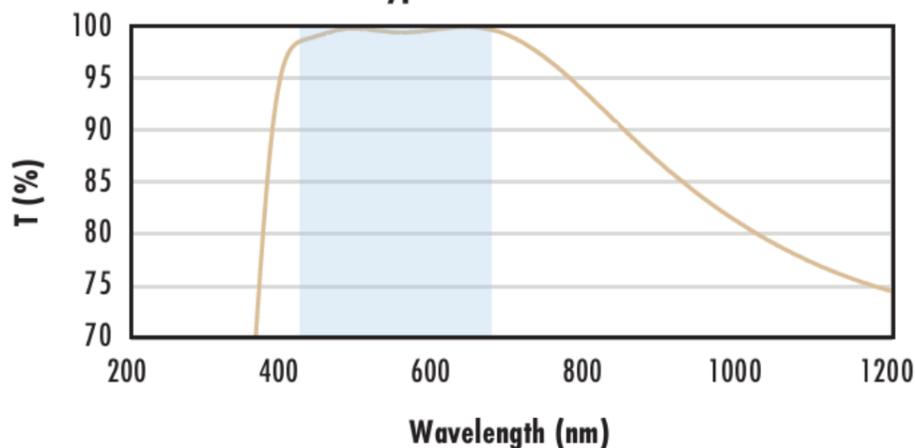
$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

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

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.

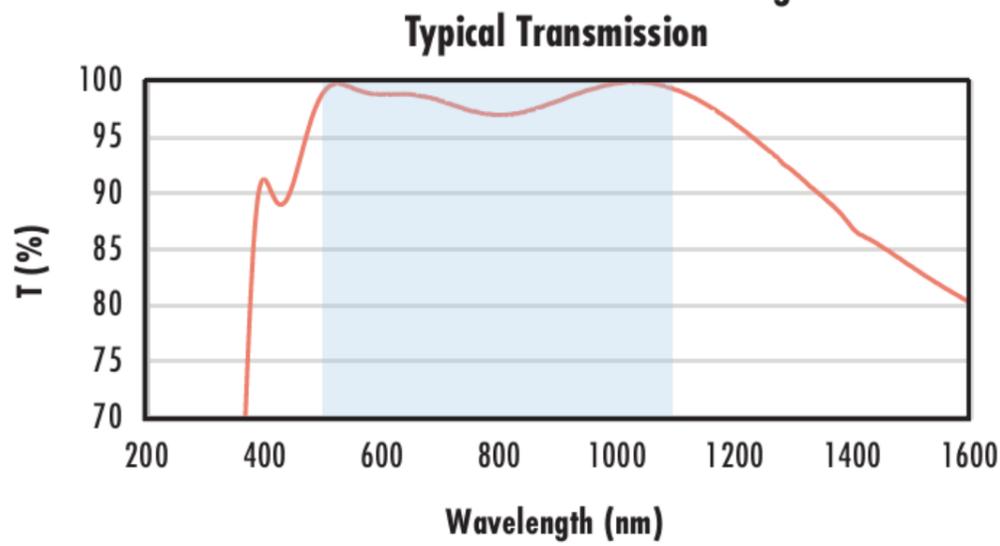
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

N-BK7 with YAG-BBAR Coating



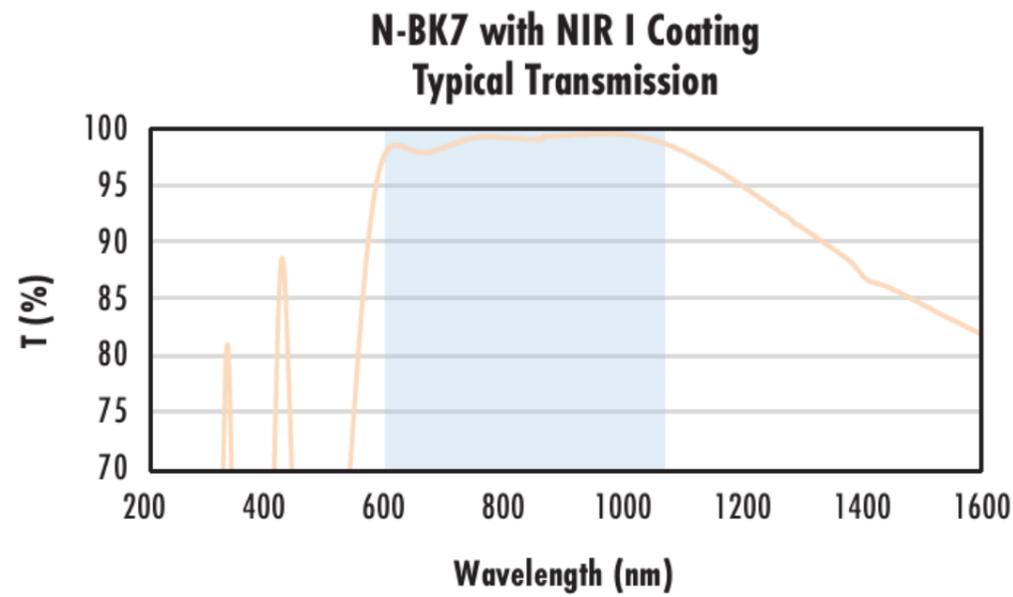
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$R_{abs} \leq 0.25\%$ @ 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.

[Click Here to Download Data](#)



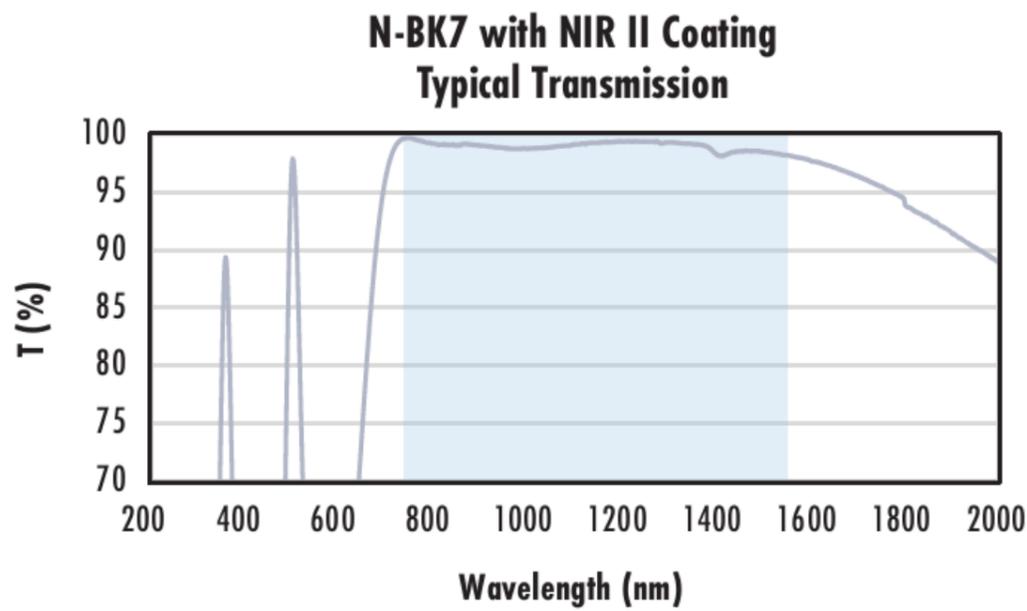
Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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:

$R_{abs} \leq 1.5\%$ @ 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.

[Click Here to Download Data](#)

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