

TECHSPEC<sup>®</sup> 50mm Dia., 6mm Thick, Uncoated λ/4 N-BK7 Window



Stock #34-430 20+ In Stock

-

1

+

S\$155<sup>.40</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | S\$155.40 each                |
| Qty 6-25       | S\$123.90 each                |
| Qty 26-49      | S\$116.20 each                |
| Need More?     | <a href="#">Request Quote</a> |

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SPECIFICATIONS

General

Type:  
Protective Window

Physical & Mechanical Properties

|                      |                          |
|----------------------|--------------------------|
| Protective as needed | Bevel:                   |
| 90                   | Clear Aperture (%):      |
| 45.00                | Clear Aperture CA (mm):  |
| 50.00 +0.0/-0.25     | Diameter (mm):           |
| 6.00 ±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 (v <sub>d</sub> ):         |
| Uncoated   | Coating:                               |
| 1.516      | Index of Refraction (n <sub>d</sub> ): |
| N-BK7      | Substrate:                             |
| λ/4        | Surface Flatness (P-V):                |
| 60-40      | Surface Quality:                       |
| 350 - 2200 | Wavelength Range (nm):                 |

### Material Properties

|                                           |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| 7.1 (-30 to +70°C)<br>8.3 (+20 to +300°C) | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |
| 2.51                                      | Density (g/cm³):                                             |

### Regulatory Compliance

|           |                             |
|-----------|-----------------------------|
| Compliant | RoHS 2015:                  |
| Compliant | REACH 201:                  |
| View      | Certificate of Conformance: |

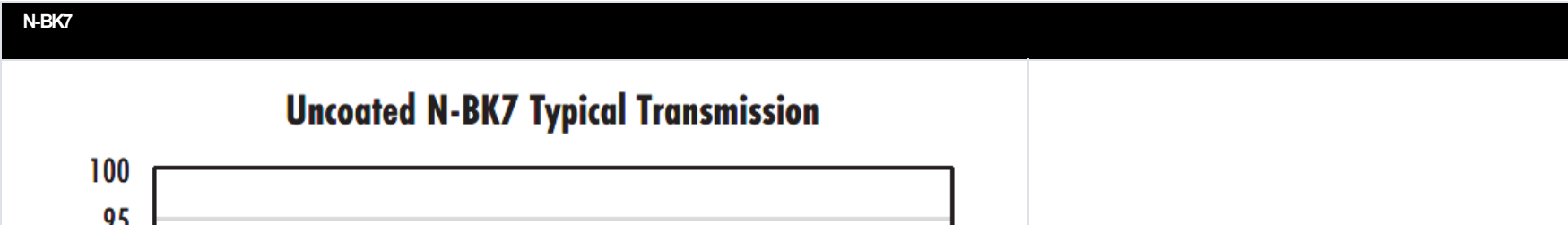
## PRODUCT DETAILS

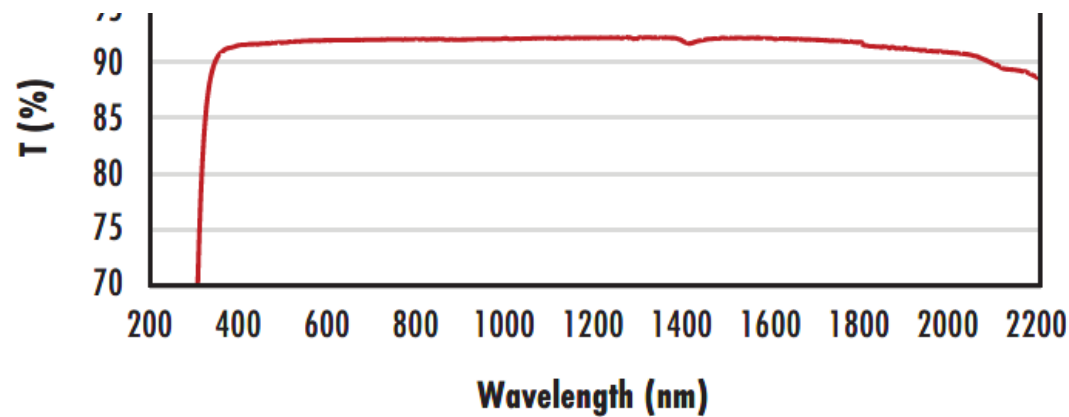
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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](#).

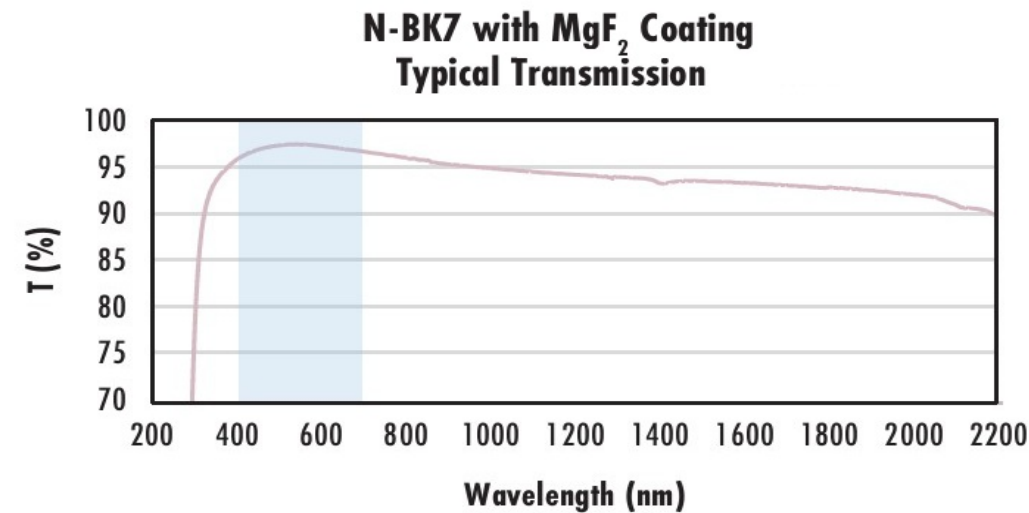
## TECHNICAL INFORMATION





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

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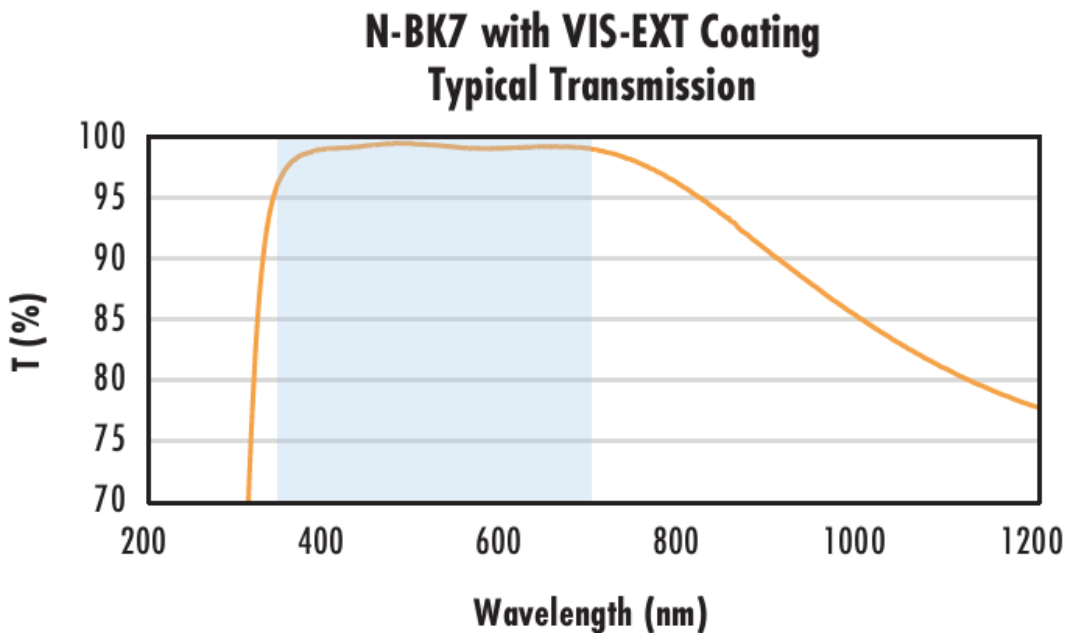
Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design 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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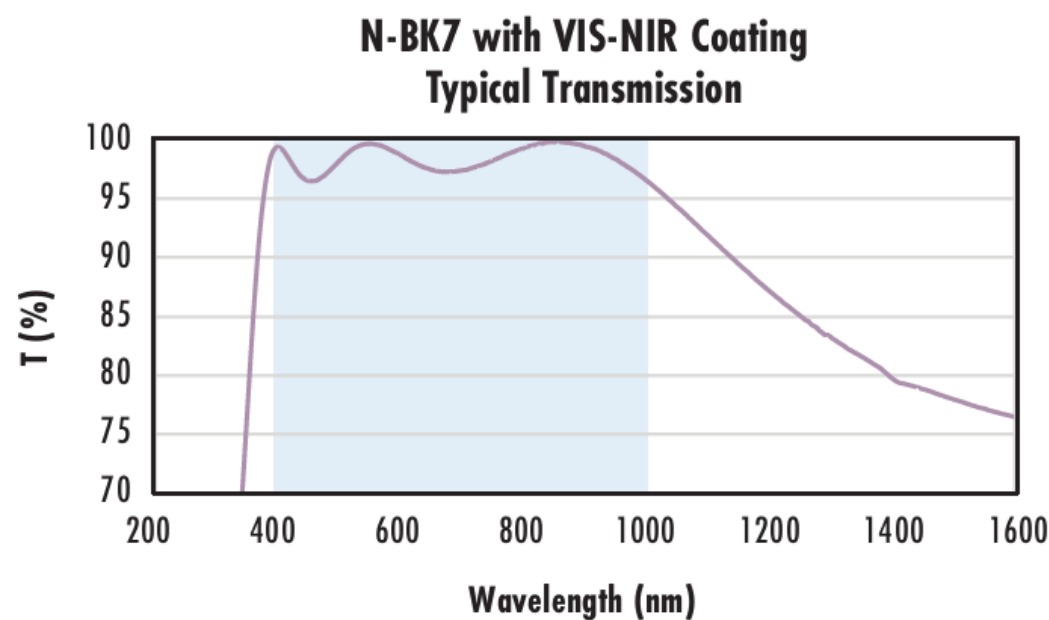
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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](#)



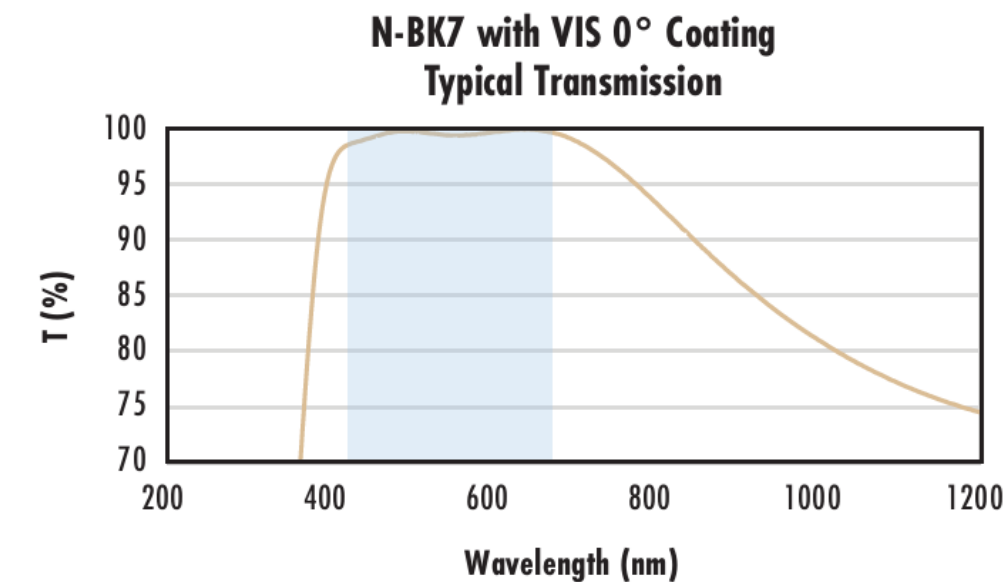
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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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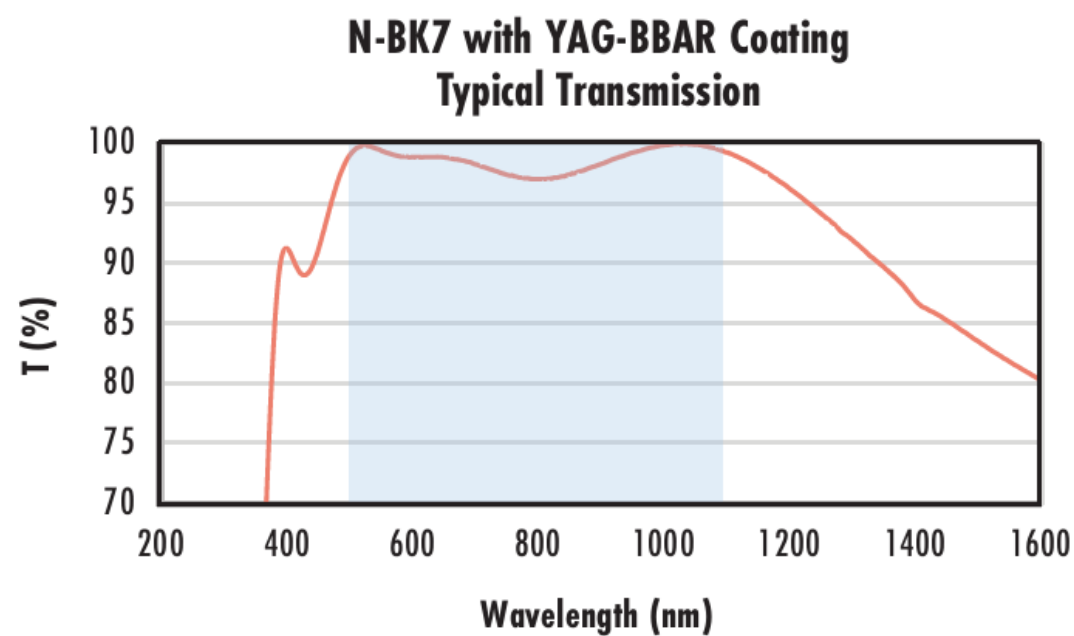
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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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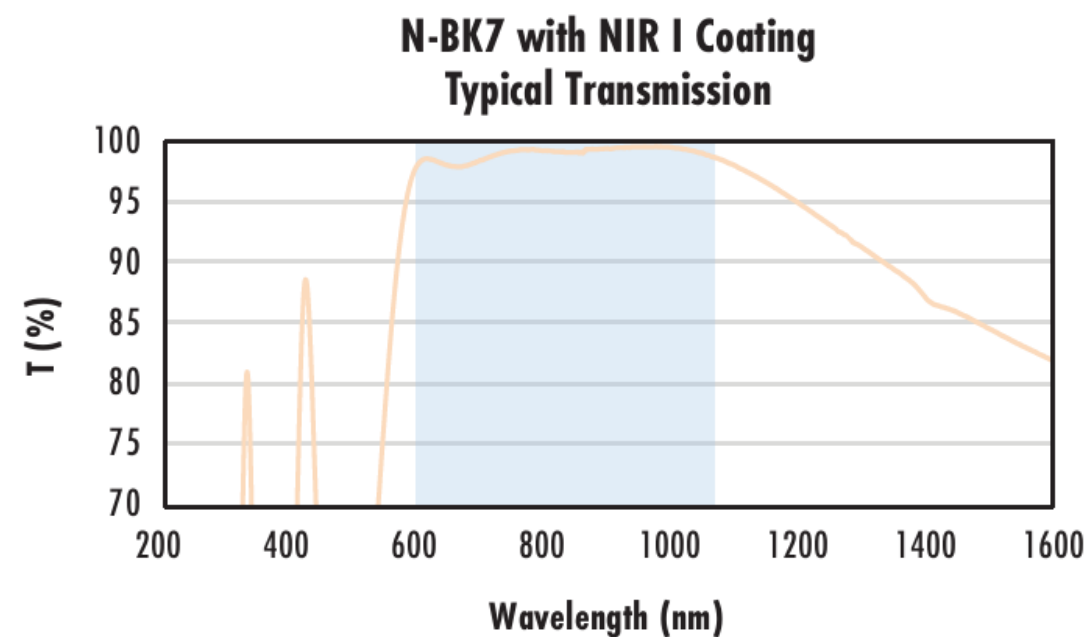
Typical transmission of a 4mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$$R_{\text{abs}} \leq 0.25\% \text{ @ } 532\text{nm}$$
$$R_{\text{abs}} \leq 0.25\% \text{ @ } 1064\text{nm}$$
$$R_{\text{avg}} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$$

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

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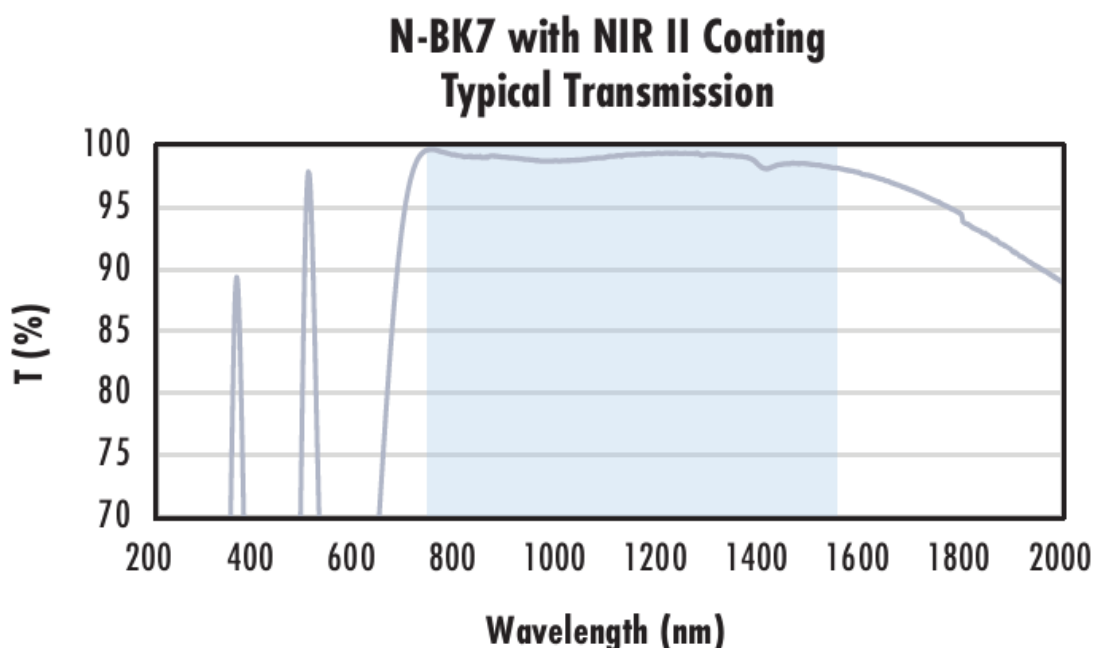
Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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:

$$R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}$$
$$R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}$$
$$R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}$$

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](#).

## COMPATIBLE MOUNTS