

TECHSPEC<sup>®</sup> 10mm Diameter VIS-NIR Coated, Ultra-Thin N-BK7 Window

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Ultra-Thin N-BK7 Windows

Stock **#22-037** **9 In Stock**

-

1

+

C\$182<sup>.00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | C\$182.00 each                |
| Qty 6-25       | C\$142.80 each                |
| Qty 26-49      | C\$137.90 each                |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Bevel:

Protective as needed

Clear Aperture CA (mm):

|                   |                          |
|-------------------|--------------------------|
| 9.00              |                          |
|                   | Diameter (mm):           |
| 10.00 +0.00/-0.10 |                          |
|                   | Thickness (mm):          |
| 0.20 ±0.025       |                          |
|                   | Edges:                   |
| Fine Ground       |                          |
|                   | Knoop Hardness (kg/mm²): |
| 610.00            |                          |
|                   | Parallelism (arcsec):    |
| <30               |                          |
|                   | Poisson's Ratio:         |
| 0.21              |                          |
|                   | Young's Modulus (GPa):   |
| 82                |                          |

| Optical Properties                                                                                                 |                                                       |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|                                                                                                                    | Abbe Number (v <sub>d</sub> ):                        |
| 64.17                                                                                                              |                                                       |
|                                                                                                                    | Coating:                                              |
| VIS-NIR (400-1000nm)                                                                                               |                                                       |
|                                                                                                                    | Coating Specification:                                |
| R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm |                                                       |
|                                                                                                                    | Index of Refraction (n <sub>d</sub> ):                |
| 1.516                                                                                                              |                                                       |
|                                                                                                                    | Substrate:                                            |
| N-BK7                                                                                                              |                                                       |
|                                                                                                                    | Surface Quality:                                      |
| 20-10                                                                                                              |                                                       |
|                                                                                                                    | Transmitted Wavefront, P-V:                           |
| λ/2                                                                                                                |                                                       |
|                                                                                                                    | Wavelength Range (nm):                                |
| 400 - 1000                                                                                                         |                                                       |
|                                                                                                                    | Damage Threshold, By Design: <input type="checkbox"/> |
| 5 J/cm² @ 532nm, 10ns                                                                                              |                                                       |

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

| Regulatory Compliance |                             |
|-----------------------|-----------------------------|
|                       | RoHS 2015:                  |
| Compliant             |                             |
|                       | Certificate of Conformance: |
| View                  |                             |
|                       | Reach 235:                  |
| Compliant             |                             |

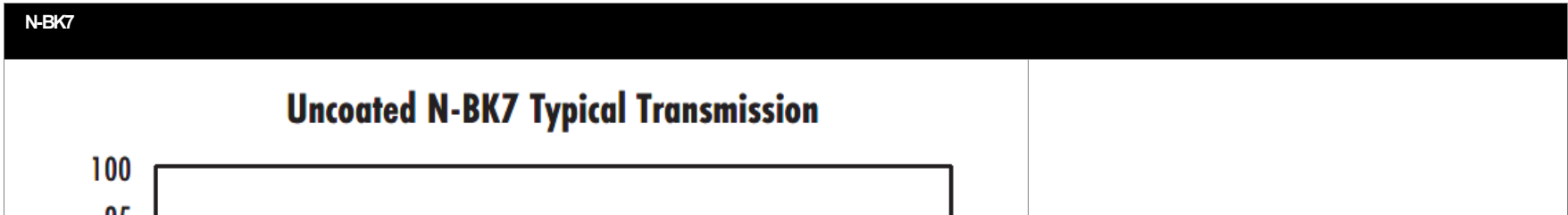
## Product Details

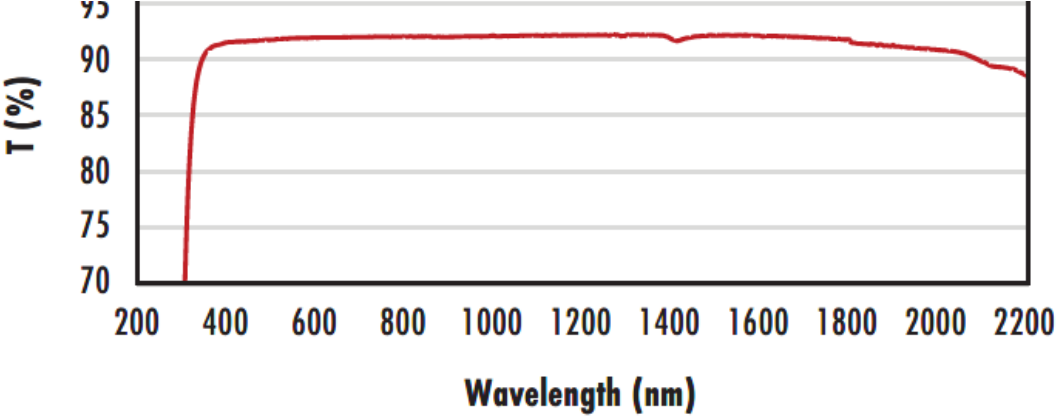
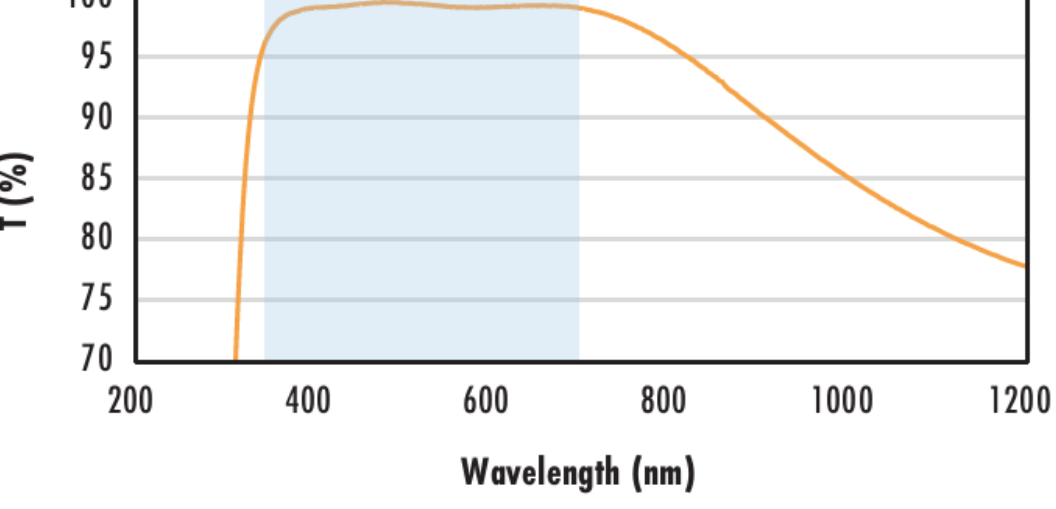
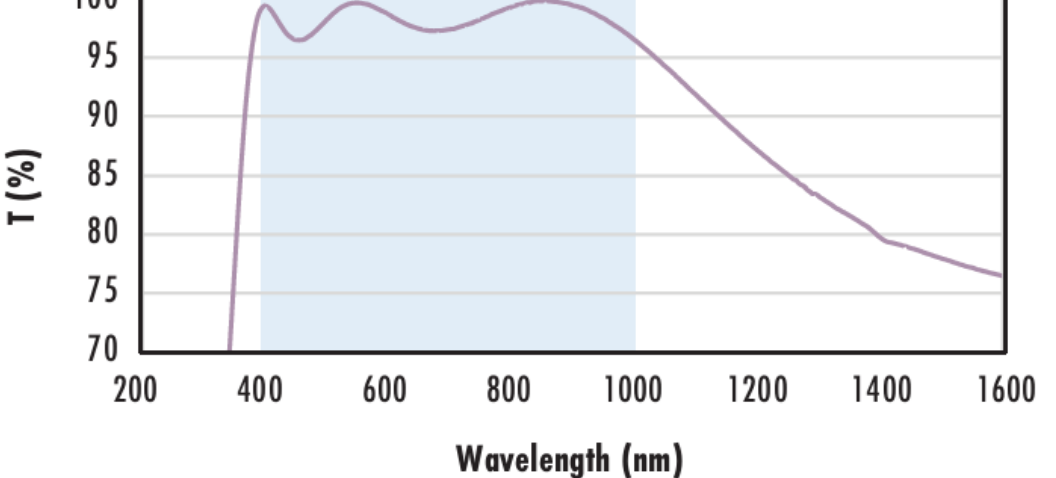
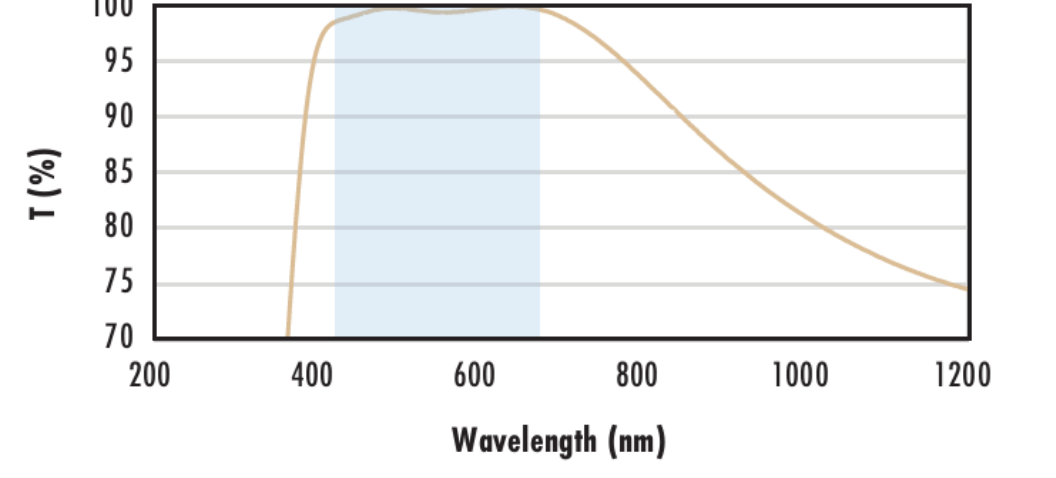
- Ultra-Thin 0.20mm Thickness
- Precision N-BK7 Substrate
- Extremely Lightweight

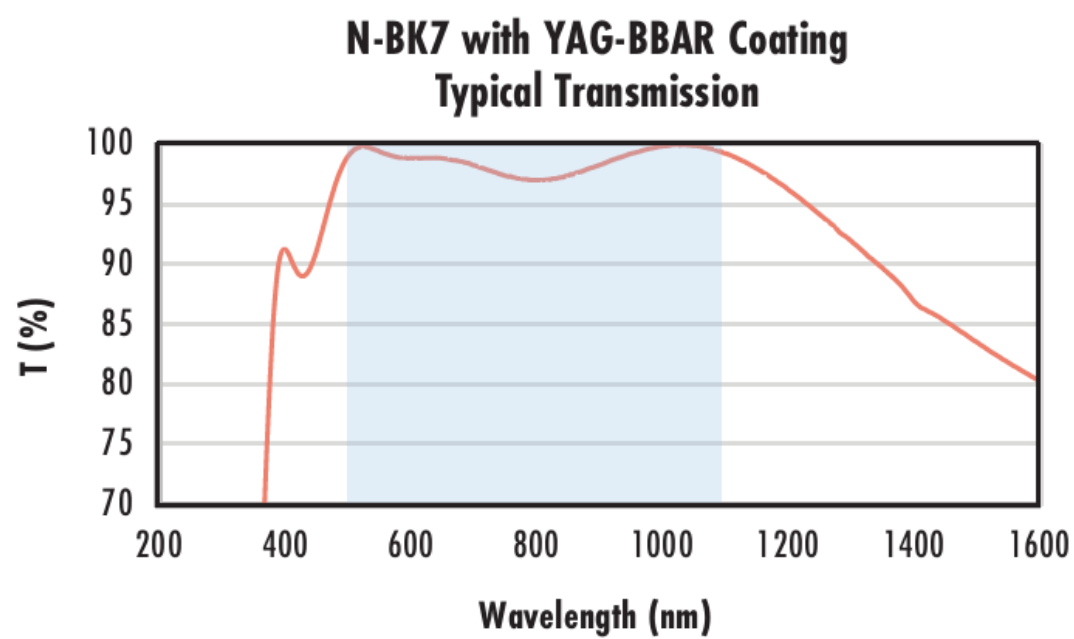
TECHSPEC® Ultra-Thin N-BK7 Windows are our thinnest windows available and are at least 1/10 the thickness of our traditional N-BK7 windows. Their extremely thin designs make them ideal for both weight and size-sensitive applications. Additionally, their high tolerance design yields minimal beam distortion 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



|                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | <p>Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>N-BK7 with MgF<sub>2</sub> Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 1.75\% @ 400 - 700\text{nm}</math> (N-BK7)</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                            |
| <p><b>N-BK7 with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>         | <p>Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\% @ 350 - 700\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                  |
| <p><b>N-BK7 with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>         | <p>Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 0.25\% @ 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |
| <p><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>          | <p>Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                   |



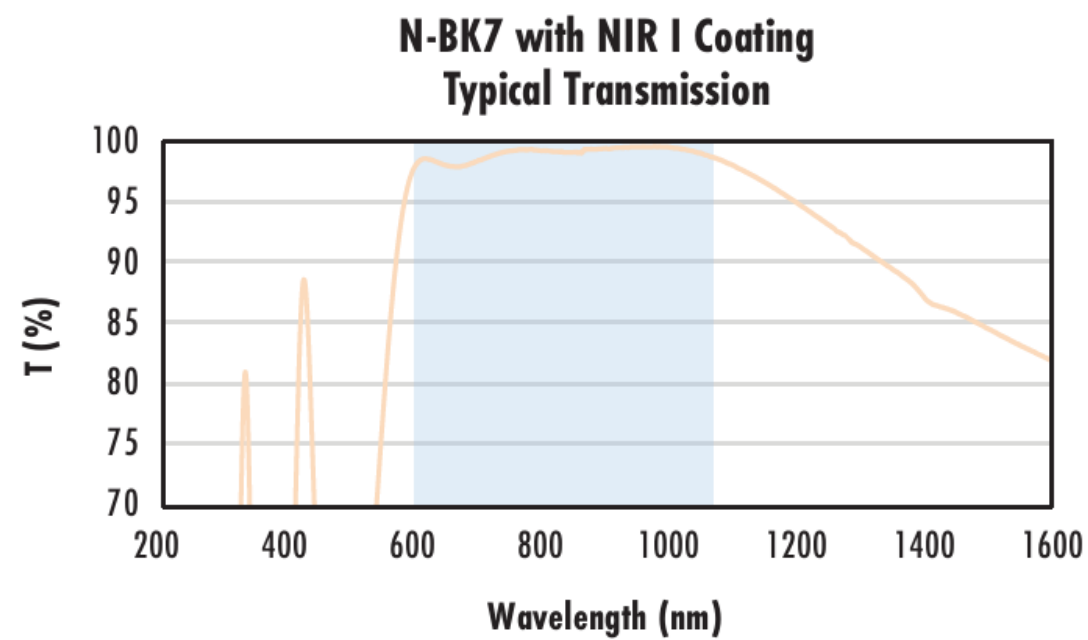
Typical transmission of a 4mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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.

[Click Here to Download Data](#)



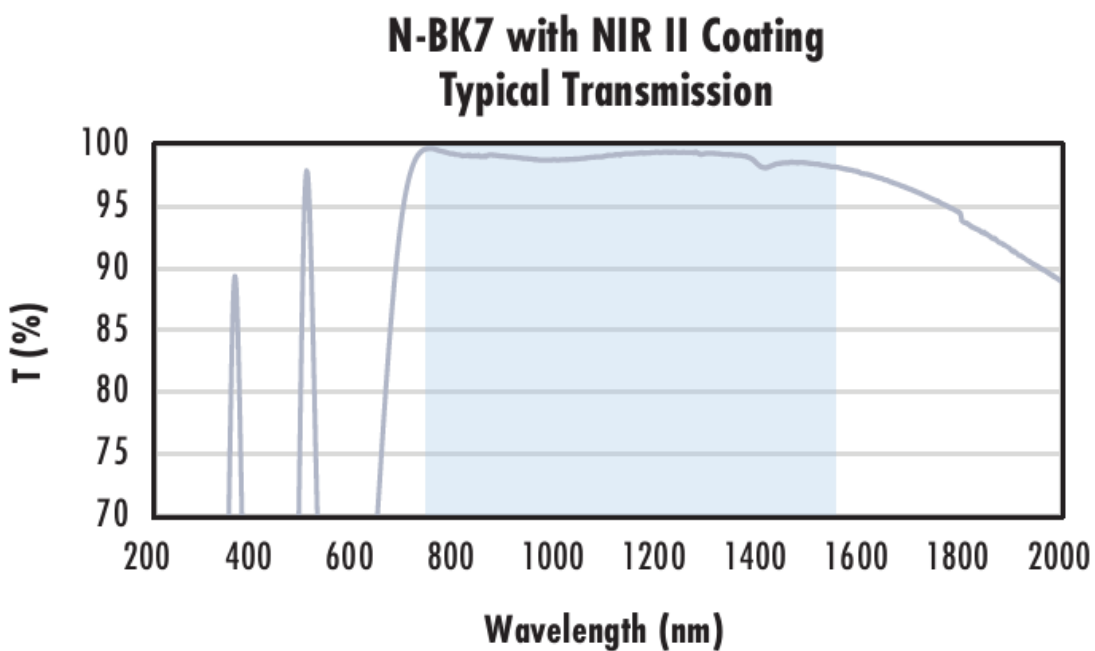
Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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:

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

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