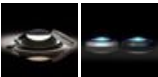


TECHSPEC<sup>®</sup> 12.7mm Dia. x 20.0mm FL, NIR II Coated, Plano-Convex Lens



Stock **#38-409** [CONTACT US](#)

☐ [Other Coating Options](#)

-

1

+

S\$64<sup>.22</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | <b>S\$64.22</b> each          |
| Qty 10-24      | <b>S\$57.49</b> each          |
| Qty 25-49      | <b>S\$51.52</b> each          |
| Need More?     | <a href="#">Request Quote</a> |

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SPECIFICATIONS

General

Type:

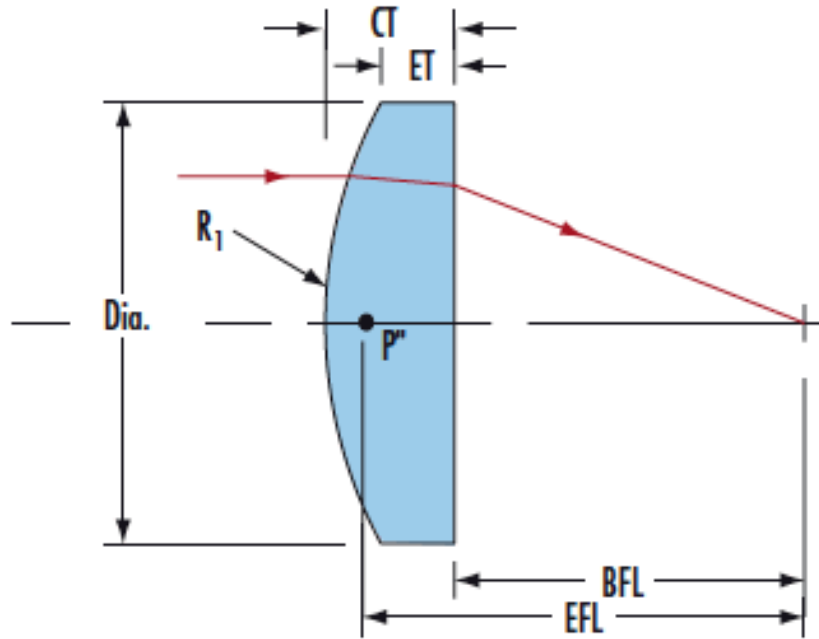
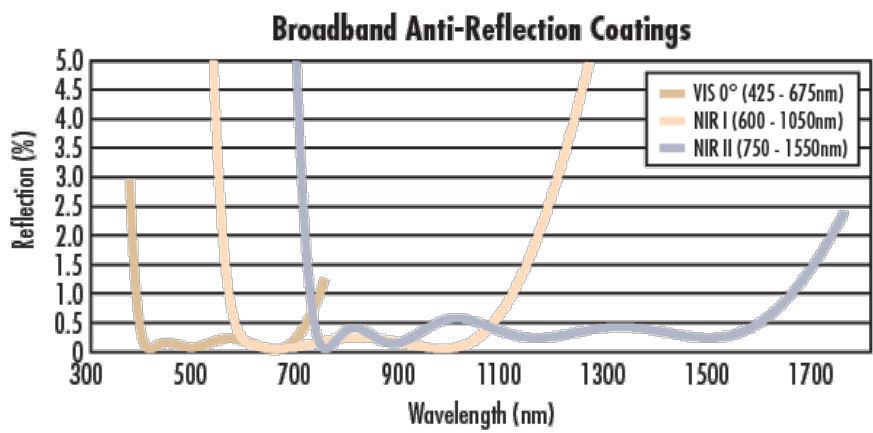
|                                                                                                                        |                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Plano-Convex Lens                                                                                                      |                                                                                                                  |
| Physical & Mechanical Properties                                                                                       |                                                                                                                  |
| 12.70 +0.0/-0.025                                                                                                      | Diameter (mm):                                                                                                   |
| <1                                                                                                                     | Centering (arcmin):                                                                                              |
| 3.80 ±0.10                                                                                                             | Center Thickness CT (mm):                                                                                        |
| 1.62                                                                                                                   | Edge Thickness ET (mm):                                                                                          |
| 11.7                                                                                                                   | Clear Aperture CA (mm):                                                                                          |
| Protective as needed                                                                                                   | Bevel:                                                                                                           |
| Optical Properties                                                                                                     |                                                                                                                  |
| 20.00 @ 587.6nm                                                                                                        | Effective Focal Length EFL (mm):                                                                                 |
| 17.49                                                                                                                  | Back Focal Length BFL (mm):                                                                                      |
| NIR II (750-1550nm)                                                                                                    | Coating:                                                                                                         |
| R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm | Coating Specification:                                                                                           |
| N-BK7                                                                                                                  | Substrate:                    |
| 40-20                                                                                                                  | Surface Quality:                                                                                                 |
| 1.5λ                                                                                                                   | Power (P-V) @ 632.8nm:                                                                                           |
| λ/4                                                                                                                    | Irregularity (P-V) @ 632.8nm:                                                                                    |
| ±1                                                                                                                     | Focal Length Tolerance (%):                                                                                      |
| 10.34                                                                                                                  | Radius R <sub>1</sub> (mm):                                                                                      |
| 1.57                                                                                                                   | f/#:                                                                                                             |
| 0.32                                                                                                                   | Numerical Aperture NA:                                                                                           |
| 750 - 1550                                                                                                             | Wavelength Range (nm):                                                                                           |
| 8 J/cm <sup>2</sup> @ 1064nm, 10ns                                                                                     | Damage Threshold, Reference:  |
| Regulatory Compliance                                                                                                  |                                                                                                                  |
| Compliant                                                                                                              | RoHS 2015:                                                                                                       |
| View                                                                                                                   | Certificate of Conformance:                                                                                      |
| Compliant                                                                                                              | Reach 235:                                                                                                       |

## PRODUCT DETAILS

- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [VIS-EXT](#), and [YAG-BBAR](#)

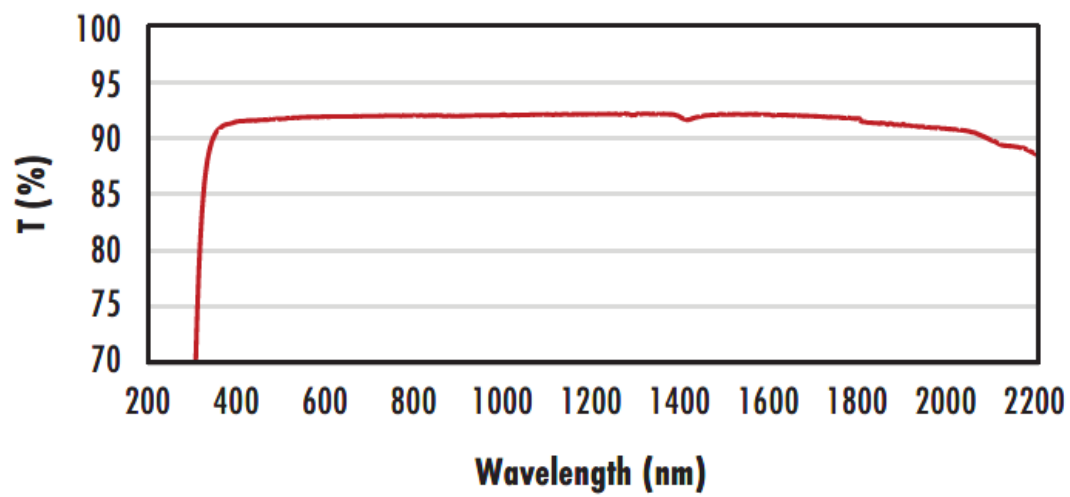
TECHSPEC® NIR II Coated Plano-Convex Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® NIR II Coated Plano-Convex Lenses 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 [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [VIS-EXT](#), and [YAG-BBAR](#).

## TECHNICAL INFORMATION



N-BK7

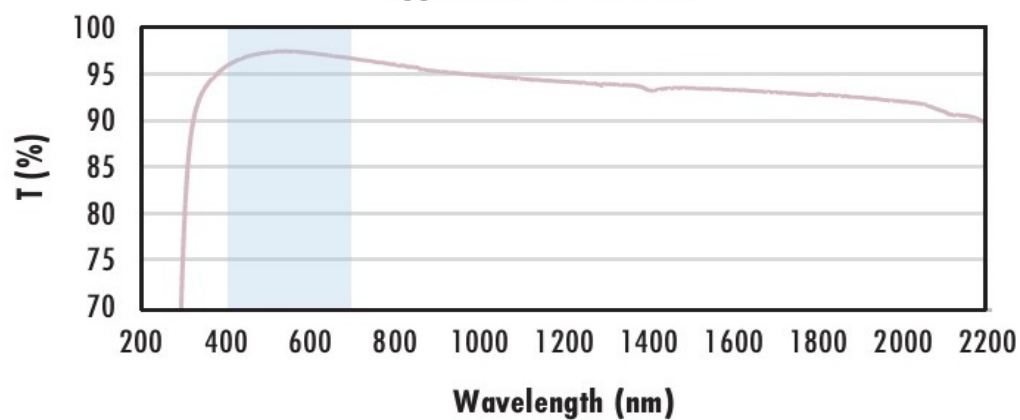
### Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

### N-BK7 with $\text{MgF}_2$ Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with  $\text{MgF}_2$  (400-700nm) coating at 0° AOI.

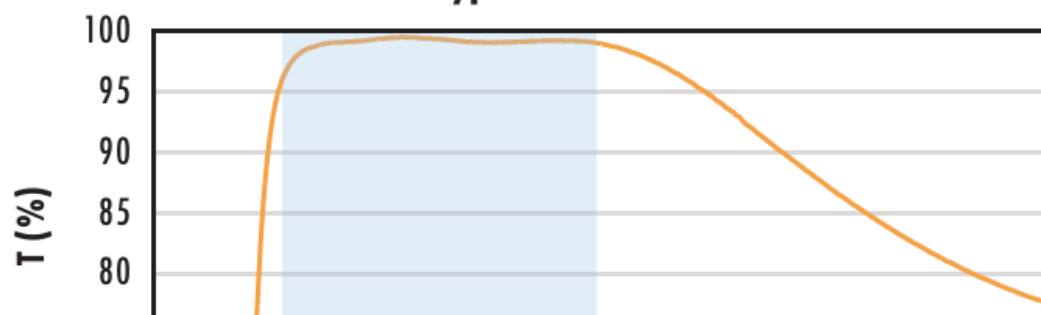
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

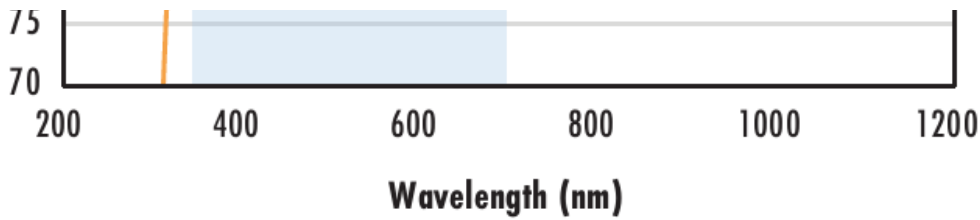


Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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

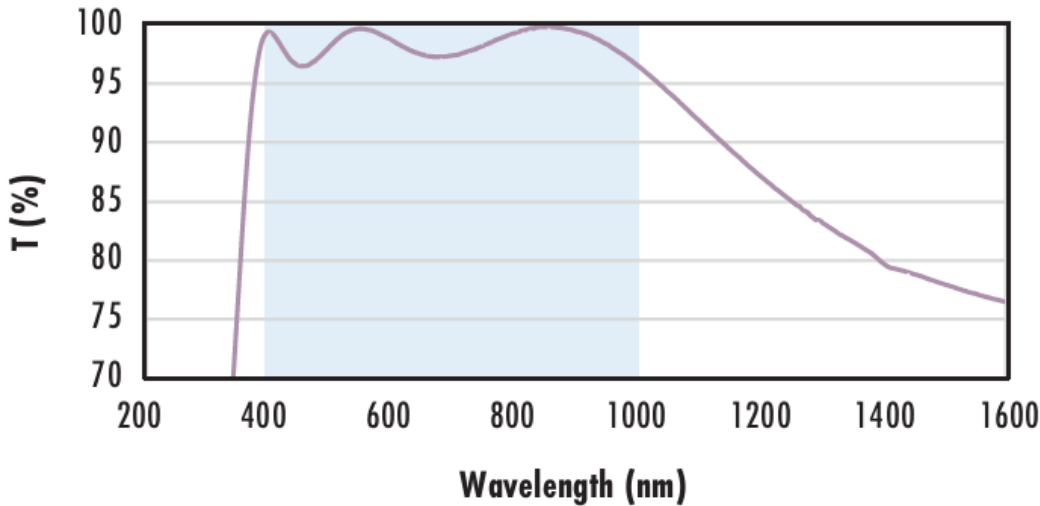
$R_{\text{avg}} \leq 0.5\% @ 350 - 700\text{nm}$

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



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**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.

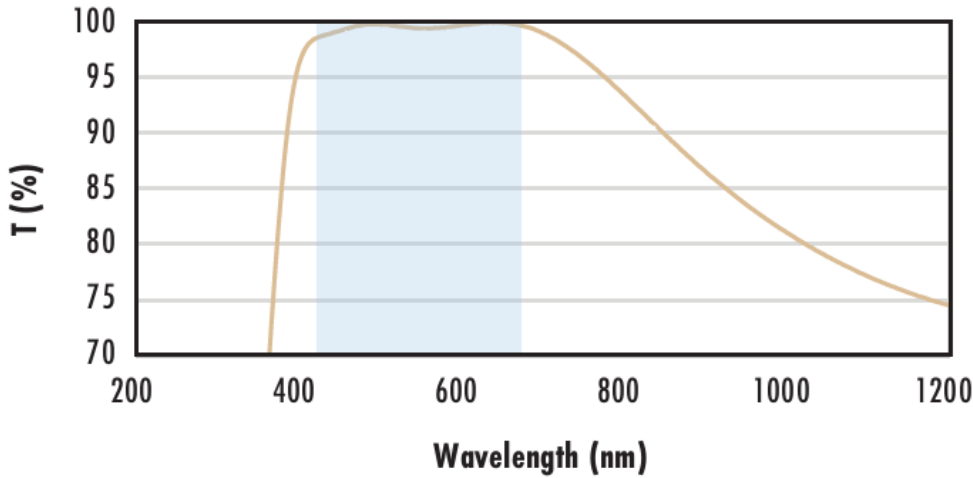
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$\begin{aligned} R_{\text{abs}} &\leq 0.25\% \text{ @ } 880\text{nm} \\ R_{\text{avg}} &\leq 1.25\% \text{ @ } 400 - 870\text{nm} \\ R_{\text{avg}} &\leq 1.25\% \text{ @ } 890 - 1000\text{nm} \end{aligned}$$

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

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**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.

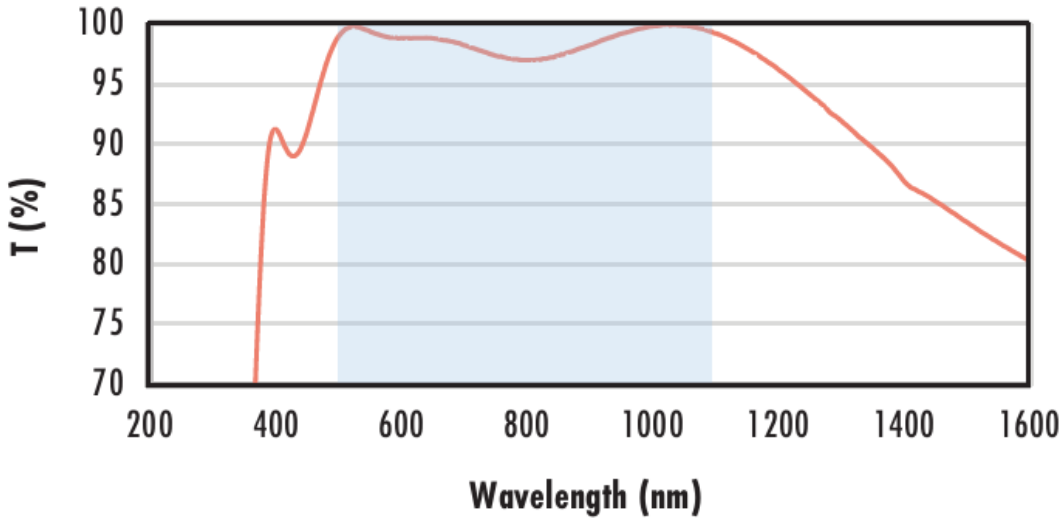
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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**



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

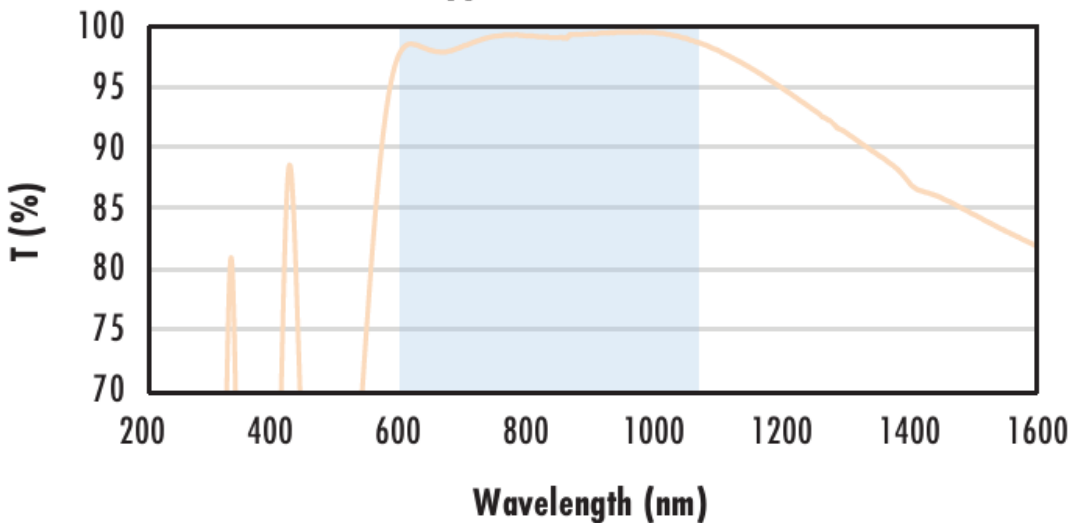
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

**N-BK7 with NIR I Coating**  
**Typical Transmission**



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

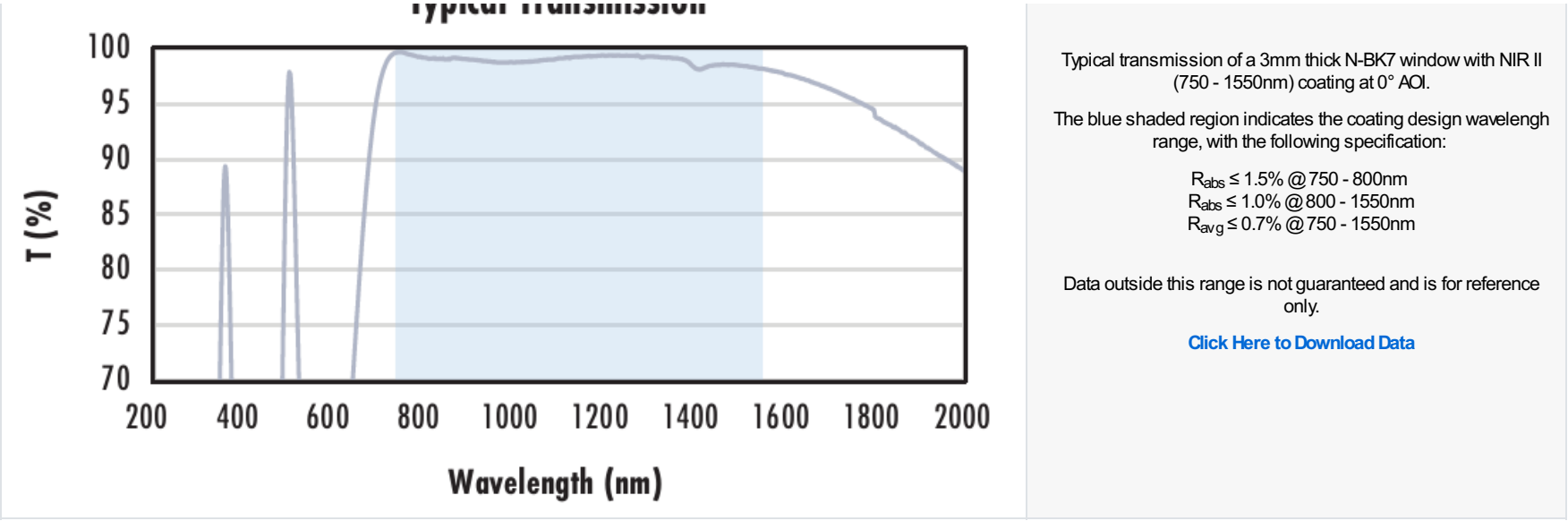
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

**N-BK7 with NIR II Coating**  
**Typical Transmission**



## 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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## COMPATIBLE MOUNTS