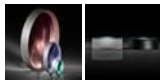


**TECHSPEC® 20mm Diameter x -30 FL, VIS-NIR Coated, Plano-Concave Lens**



TECHSPEC VIS-NIR Coated Plano-Concave (PCV) Lenses



Stock **#45-919** **8 In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ ₹3,776

**ADD TO CART**

Volume Pricing	
Qty 1-9	₹3,776 each
Qty 10-25	₹3,386 each
Qty 26-49	₹3,017 each
Need More?	<a href="#">Request Quote</a>

Product Downloads

**SPECIFICATIONS**

General

Plano-Concave Lens

Type:

## Physical & Mechanical Properties

20.00 +0.0/-0.025 **Diameter (mm):**

Protective as needed **Bevel:**

3.50 **Center Thickness CT (mm):**

±0.10 **Center Thickness Tolerance (mm):**

<1 **Centering (arcmin):**

19.00 **Clear Aperture CA (mm):**

5.39 **Edge Thickness ET (mm):**

## Optical Properties

-30.00 **Effective Focal Length EFL (mm):**

[N-SF11](#) **Substrate:**

1.5 **f#:**

0.33 **Numerical Aperture NA:**

MS-NIR (400-1000nm) **Coating:**

400 - 1000 **Wavelength Range (nm):**

-31.96 **Back Focal Length BFL (mm):**

**Coating Specification:**  
 $R_{abs} \leq 0.25\% @ 880nm$   
 $R_{avg} \leq 1.25\% @ 400 - 870nm$   
 $R_{avg} \leq 1.25\% @ 890 - 1000nm$

587.6 **Focal Length Specification Wavelength (nm):**

±1 **Focal Length Tolerance (%):**

-23.54 **Radius  $R_1$  (mm):**

40-20 **Surface Quality:**

5 J/cm<sup>2</sup> @ 532nm, 10ns **Damage Threshold, By Design:**

1.5λ **Power (P-V) @ 632.8nm:**

λ/4 **Irregularity (P-V) @ 632.8nm:**

## Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[View](#) **Certificate of Conformance:**

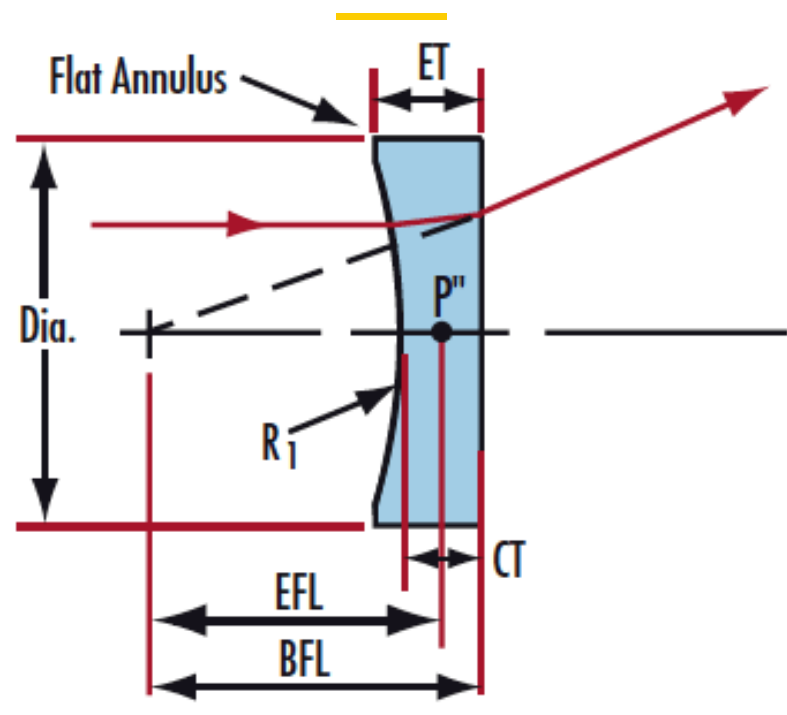
[Compliant](#) **Reach 235:**

## PRODUCT DETAILS

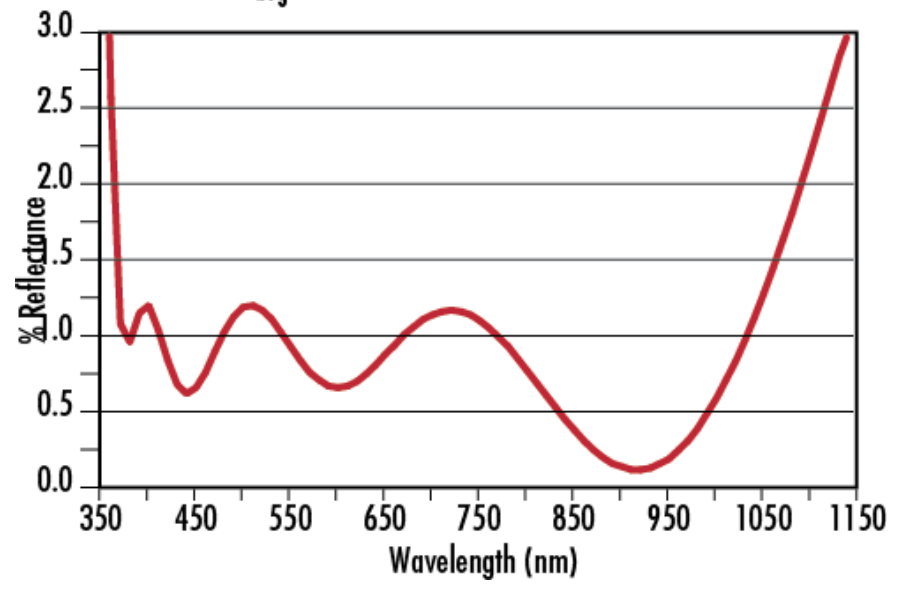
- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
- <0.25% Reflectance @ 880nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® VIS-NIR Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® VIS-NIR Coated Plano-Concave (PCV) Lenses are optimized for transmission (>99%) in the near-infrared. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

## TECHNICAL INFORMATION

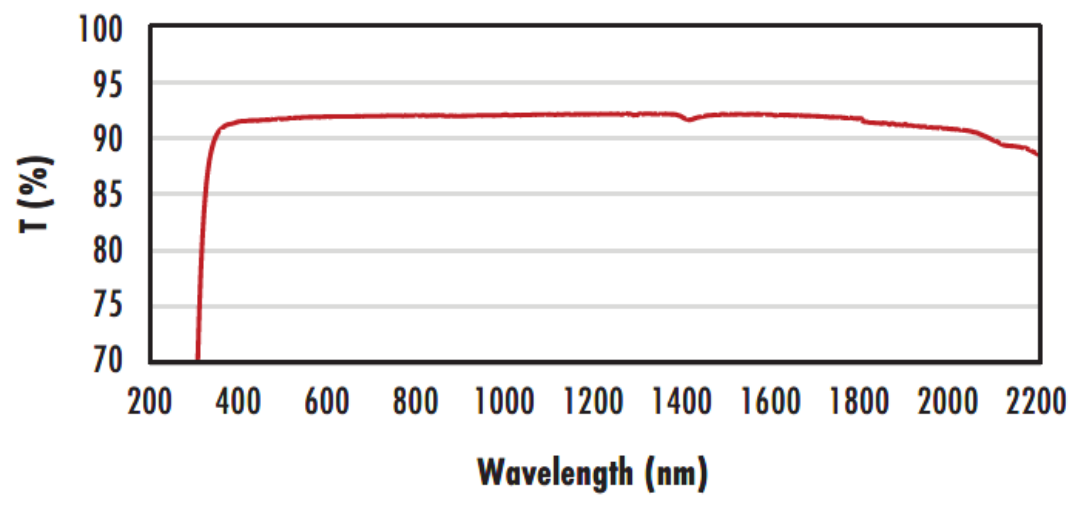


**VIS-NIR Coating**  
 $R_{obs} \leq 0.25\% @ 880\text{nm}$   
 $R_{avg} \leq 1.25\% @ 400-1000\text{nm}$



N-BK7

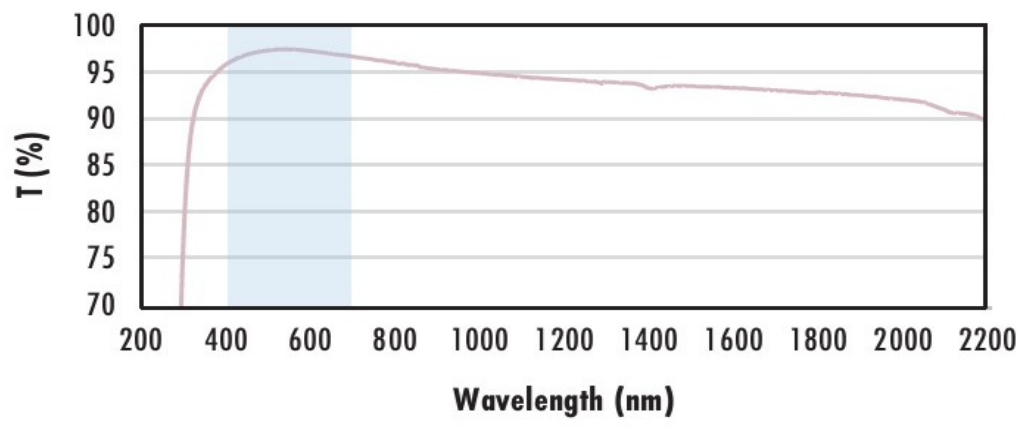
**Uncoated N-BK7 Typical Transmission**



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

[Click Here to Download Data](#)

**N-BK7 with MgF<sub>2</sub> Coating Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

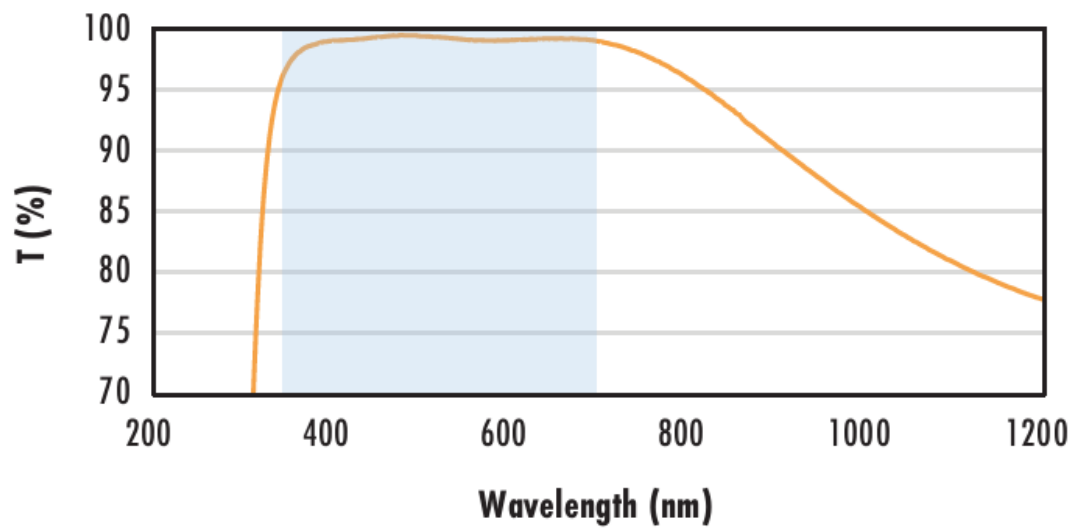
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

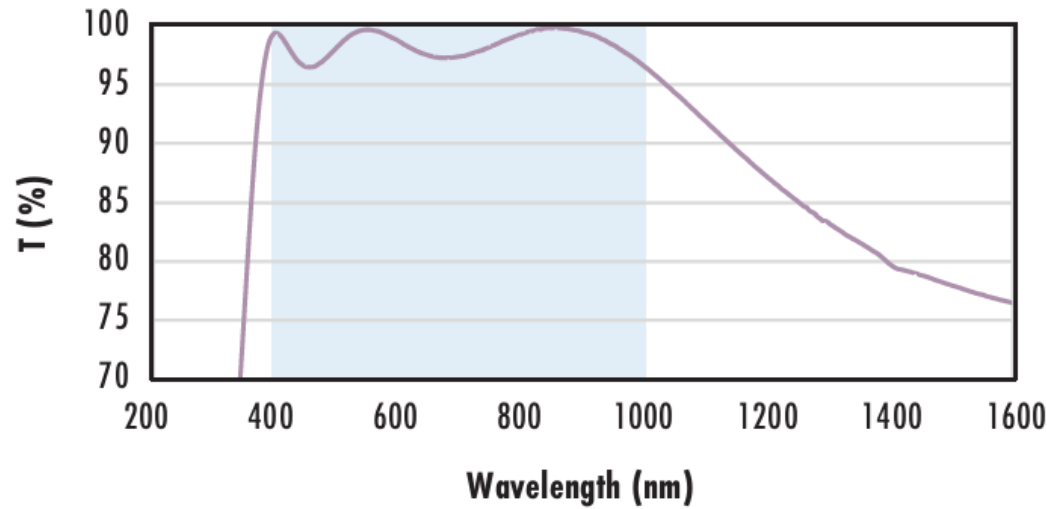
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

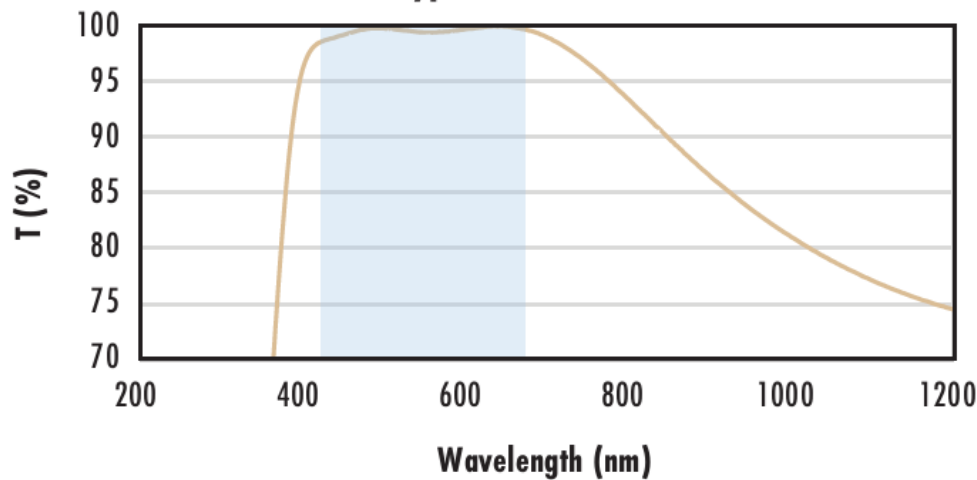
$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

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

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.

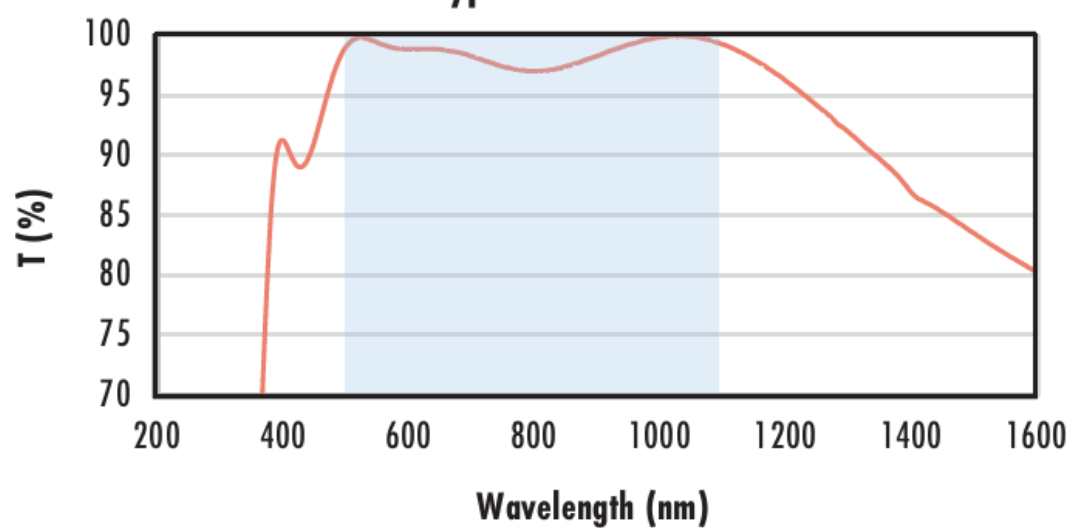
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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



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:

$$R_{abs} \leq 0.25\% @ 532\text{nm}$$

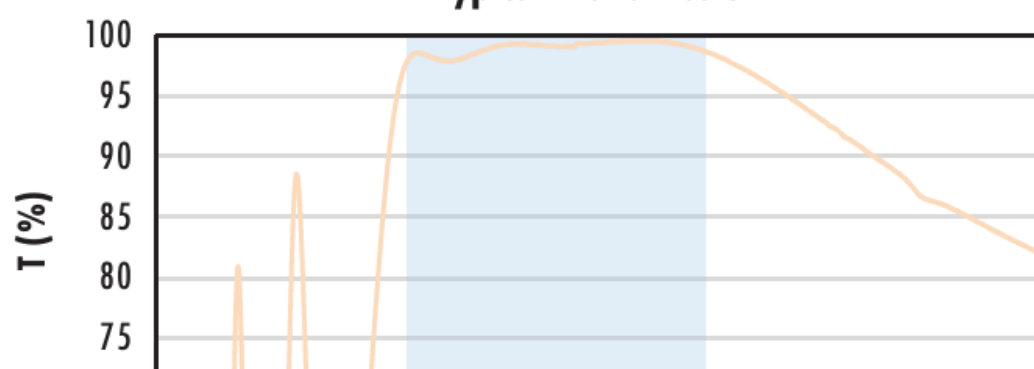
$$R_{abs} \leq 0.25\% @ 1064\text{nm}$$

$$R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$$

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

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



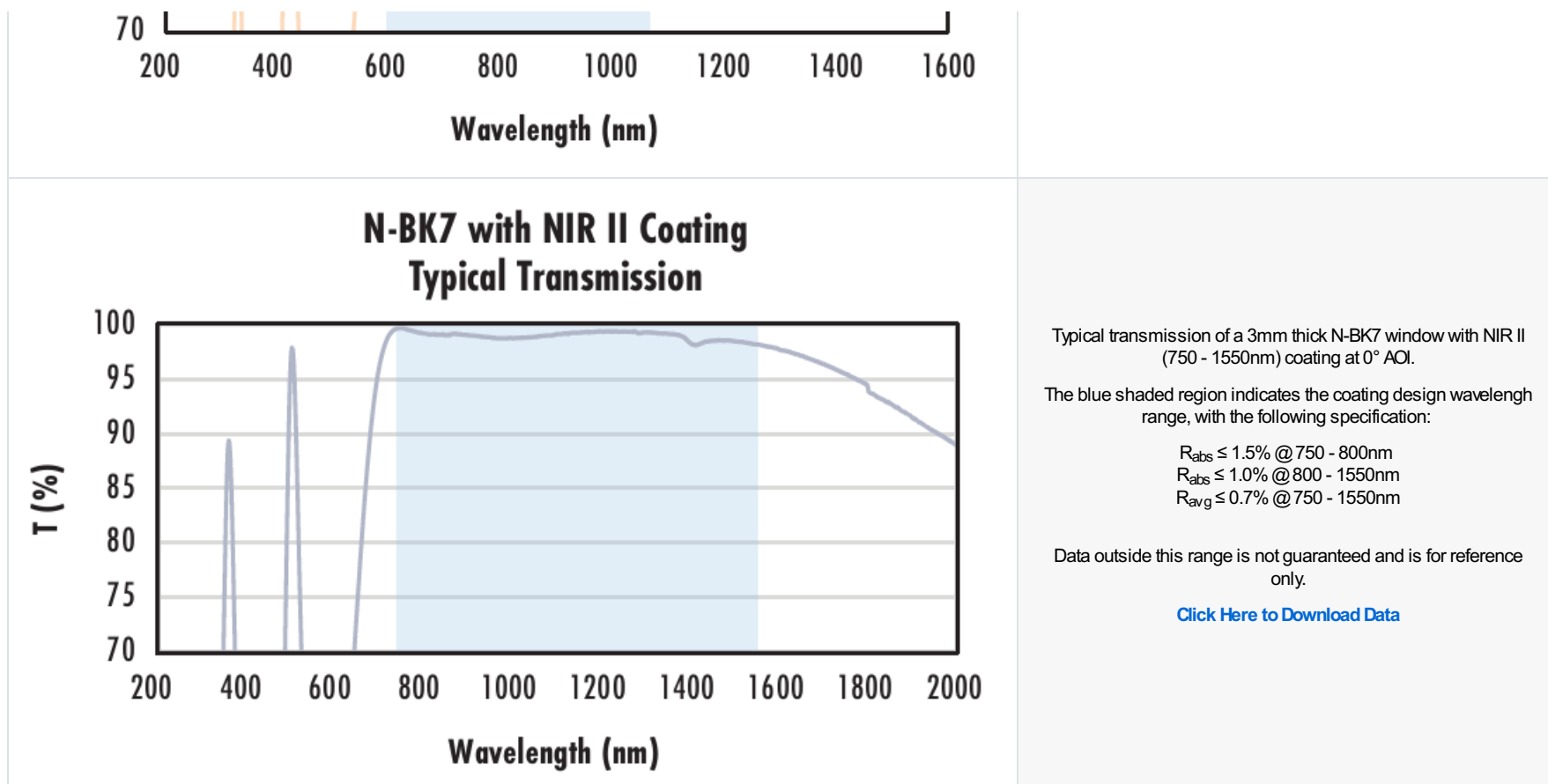
Typical transmission of a 3mm thick N-BK7 window with NIR I (600-1050nm) coating at 0° AOI.

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

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

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