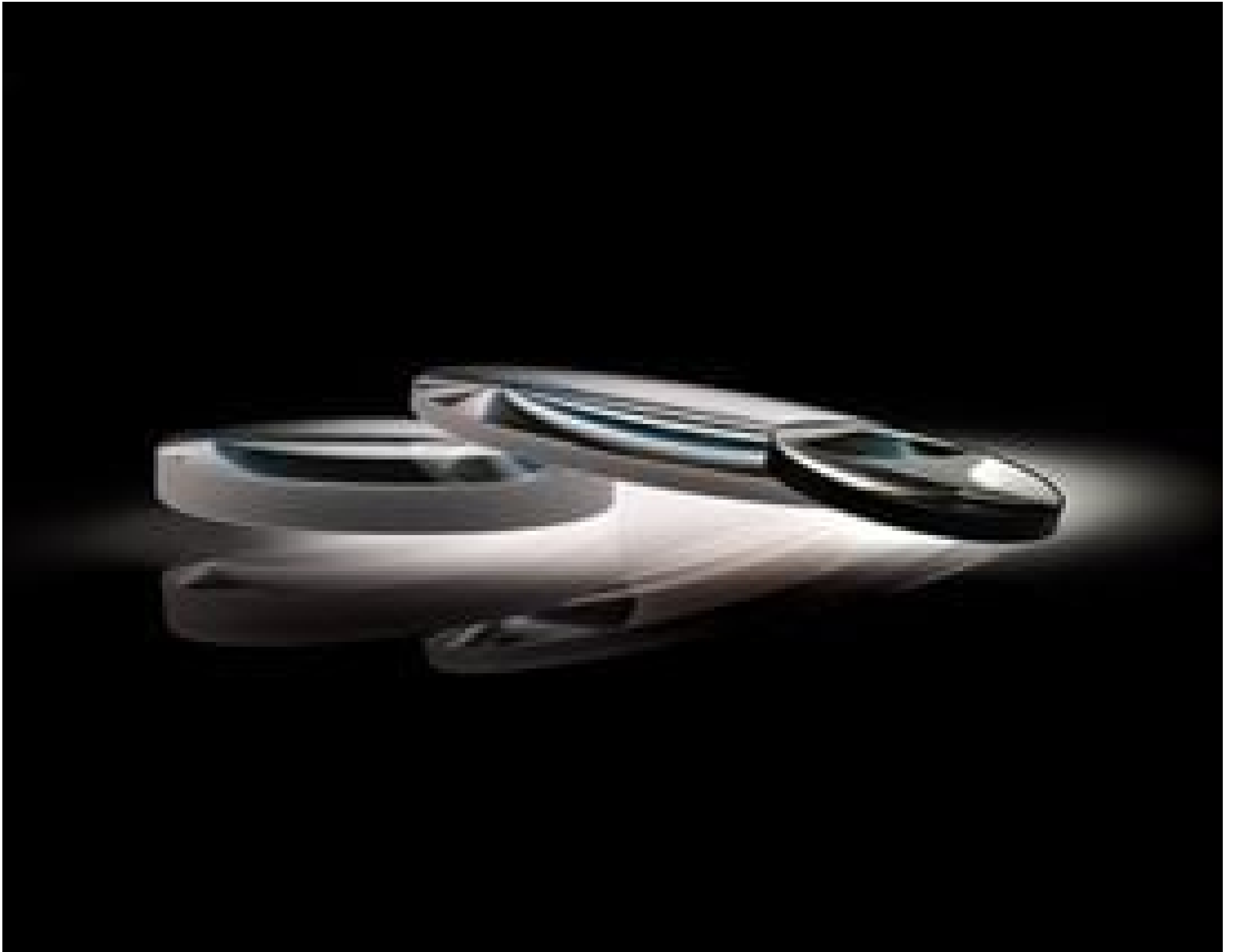


TECHSPEC® 12mm Dia. x 30mm FL, MgF₂ Coated, Double-Convex Lens



Stock **#45-088** **17 In Stock**

[Other Coating Options](#)

1 £33²⁰

ADD TO CART

Volume Pricing	
Qty 1-9	£33.20 each
Qty 10-24	£29.80 each
Qty 25-99	£26.60 each
Need More?	Request Quote

! Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Double-Convex Lens

Type:

Physical & Mechanical Properties

12.00 +0.0/-0.025 **Diameter (mm):**

<1 **Centering (arcmin):**

Protective as needed **Bevel:**

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

±0.05 **Center Thickness Tolerance (mm):**

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

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

Optical Properties

28.75 **Back Focal Length BFL (mm):**

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

MgF₂ (400-700nm) **Coating:**

R_{avg} ≤ 1.75% @ 400 - 700nm **Coating Specification:**

N-BK7 **Substrate:**

40-20 **Surface Quality:**

1.5λ **Power (P-V) @ 632.8nm:**

λ/4 **Irregularity (P-V) @ 632.8nm:**

30.36 **Radius R₁=R₂ (mm):**

2.5 **f#:**

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

±1 **Focal Length Tolerance (%):**

0.20 **Numerical Aperture NA:**

400 - 700 **Wavelength Range (nm):**

10 J/cm² @ 532nm, 10ns **Damage Threshold, By Design:**

Regulatory Compliance

Compliant **RoHS 2015:**

View **Certificate of Conformance:**

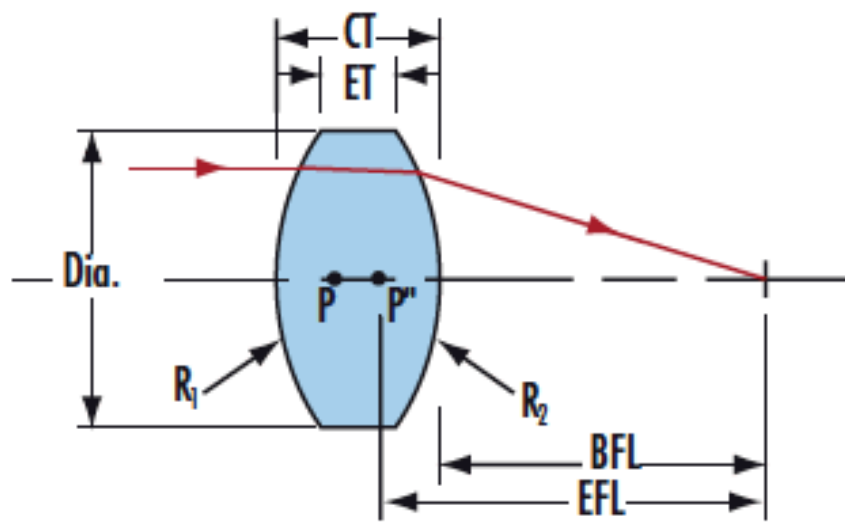
Compliant **Reach 235:**

PRODUCT DETAILS

- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Other Coating Options Available: [Uncoated](#), [VIS 0°](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), [VIS-NIR](#), and [YAG-BBAR](#)

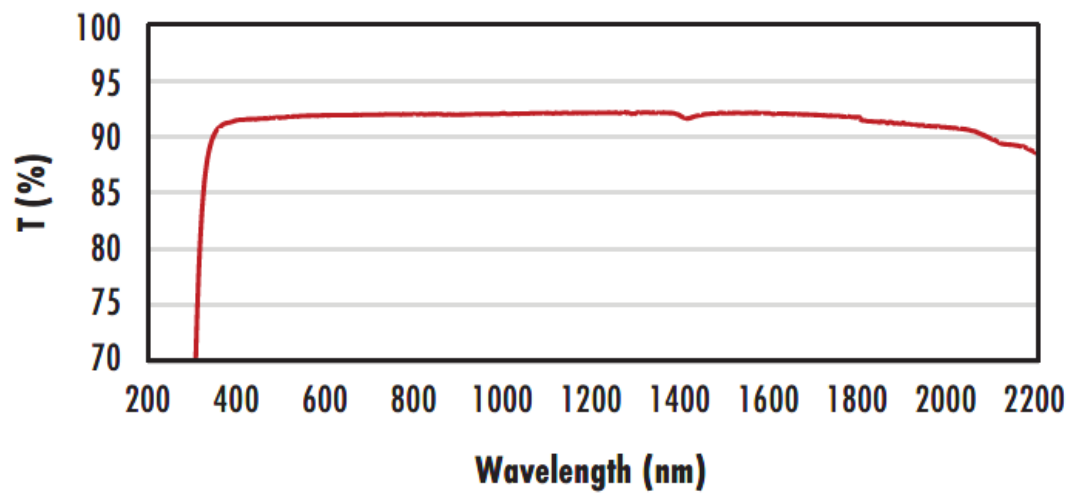
TECHSPEC® MgF₂ Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or cancelled due to the symmetric lens design. TECHSPEC® MgF₂ Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

TECHNICAL INFORMATION



N-BK7

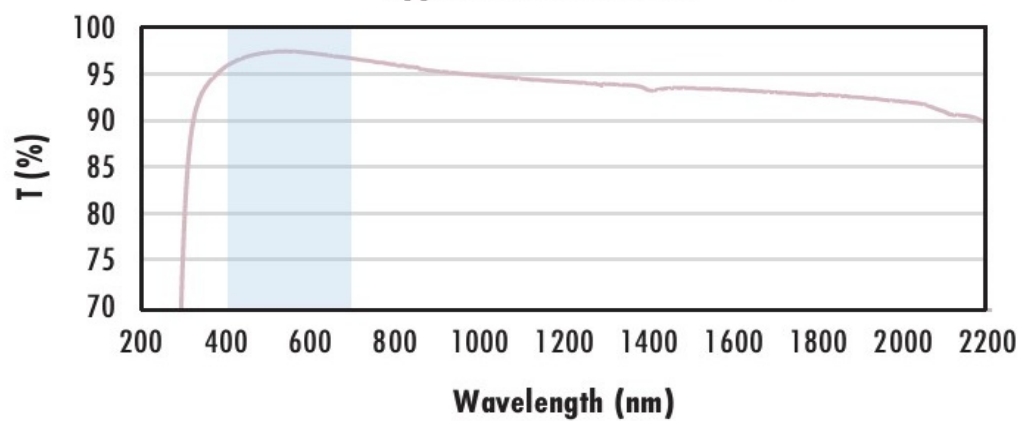
Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

N-BK7 with MgF₂ Coating Typical Transmission



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

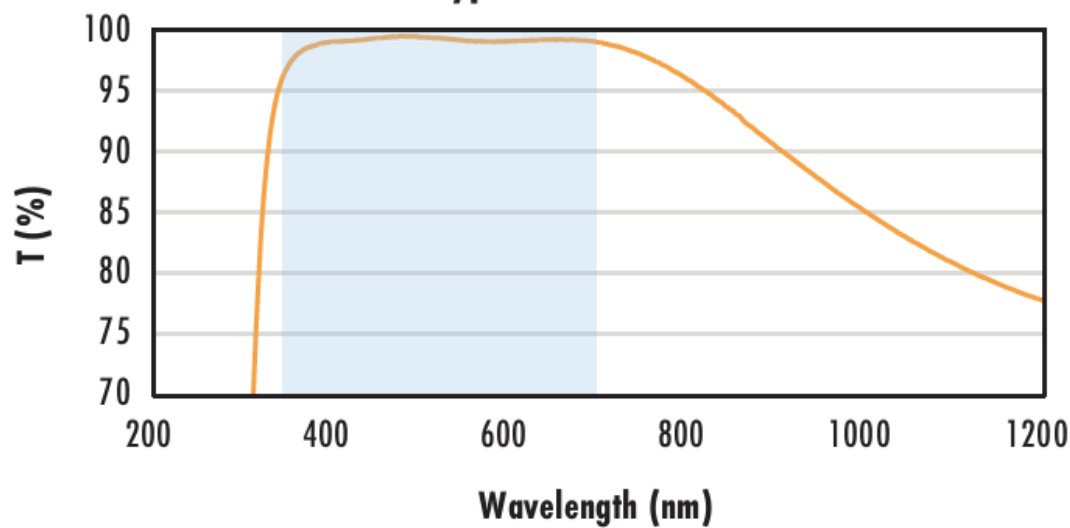
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

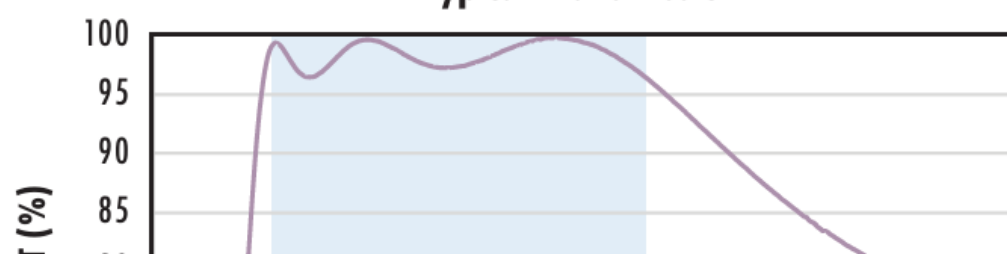
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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



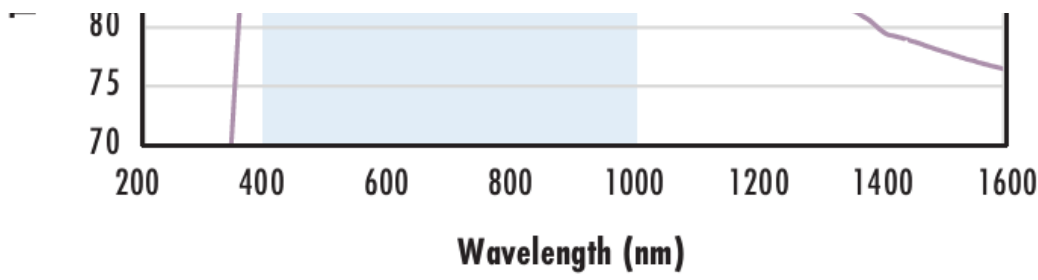
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

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

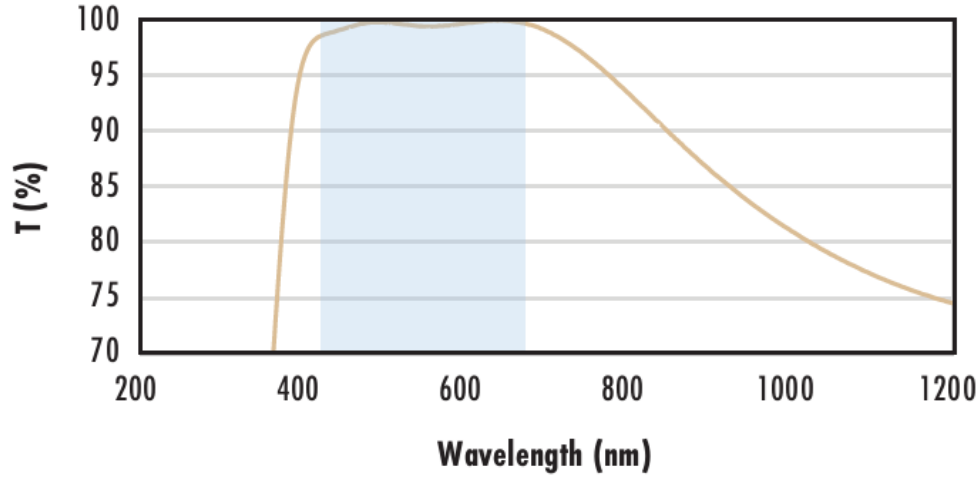
$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

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



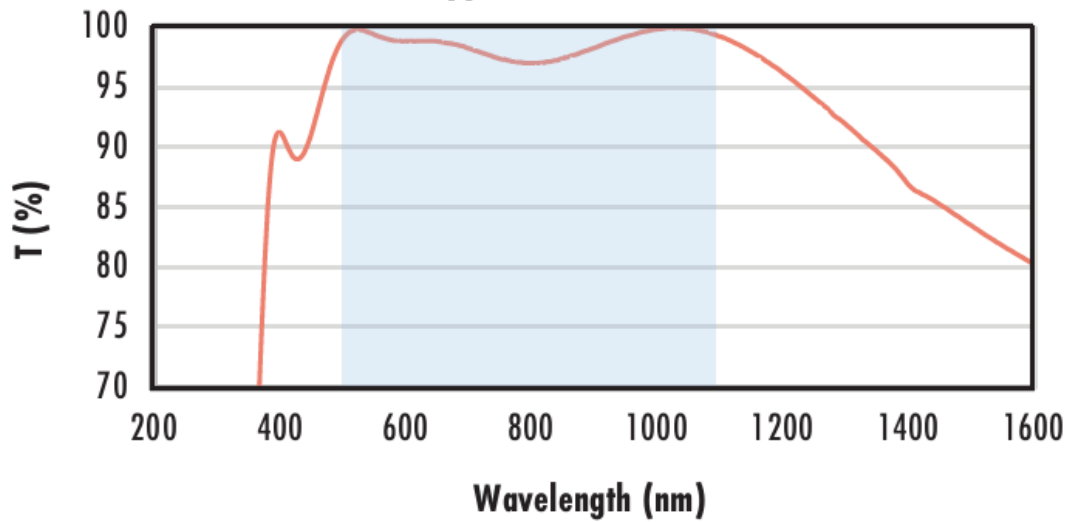
Data outside this range is not guaranteed and is for reference only.
[Click Here to Download Data](#)

**N-BK7 with VIS 0° Coating
Typical Transmission**



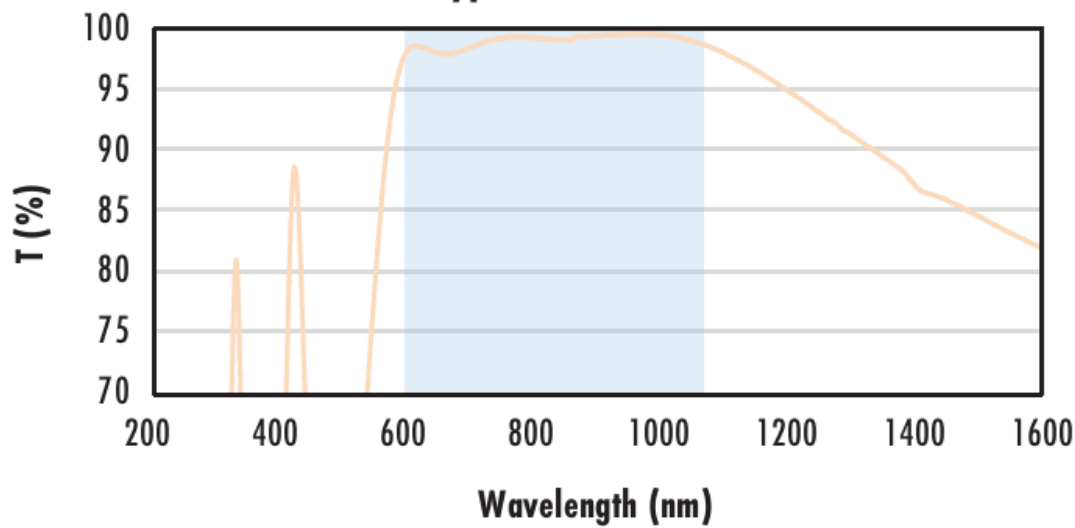
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.4\% @ 425 - 675nm$
 Data outside this range is not guaranteed and is for reference only.
[Click Here to Download Data](#)

**N-BK7 with YAG-BBAR Coating
Typical Transmission**



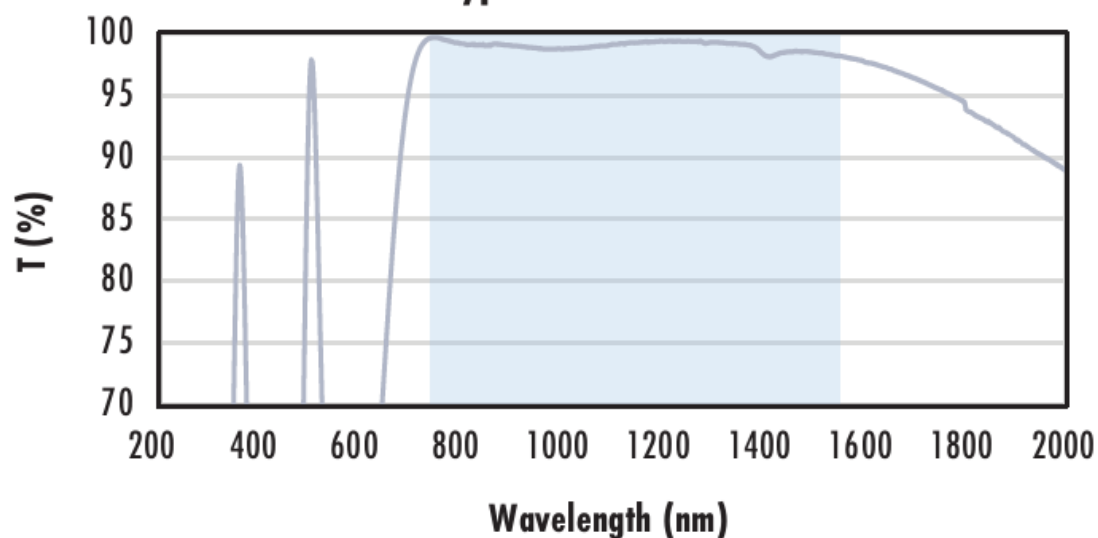
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{abs} \leq 0.25\% @ 532nm$
 $R_{abs} \leq 0.25\% @ 1064nm$
 $R_{avg} \leq 1.0\% @ 500 - 1100nm$
 Data outside this range is not guaranteed and is for reference only.
[Click Here to Download Data](#)

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



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
