Edmund
optics | worldwide

TECHSPEC® 30mm Dia. x 100mm FL, Uncoated, Double-Convex Lens
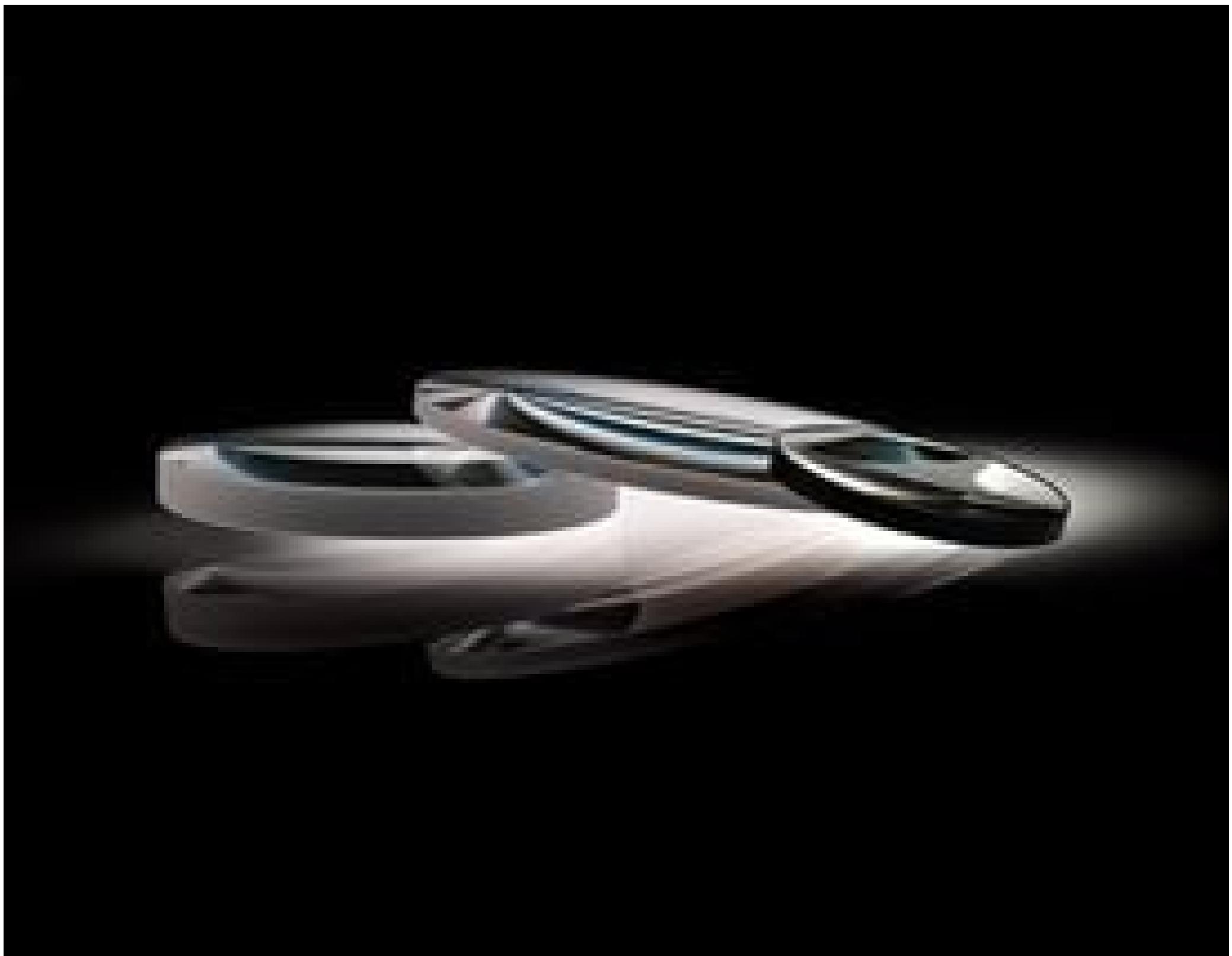
Stock **#63-558**   **20+ In Stock**

⬜ **Other Coating Options**

⊖   1   ⊕   **£36**.00

ADD TO CART

Volume Pricing	
Qty 1-9	**£36.80** each
Qty 10-24	**£33.20** each
Qty 25-99	**£29.40** each
Need More?	**Request Quote**

❶ Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Type:

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

30.00 +0.0/-0.025

Centering (arcmin):

<1

Bevel:

Protective as needed

Center Thickness CT (mm):

5.00

Center Thickness Tolerance (mm):

±0.10

Edge Thickness ET (mm):

2.79

Clear Aperture CA (mm):

29.00

Optical Properties

Back Focal Length BFL (mm):

98.34

Effective Focal Length EFL (mm):

100.00

Coating:

Uncoated

Substrate: □

N-BK7

Surface Quality:

40-20

Power (P-V) @ 632.8nm:

1.5λ

Irregularity (P-V) @ 632.8nm:

$\lambda/4$

Radius R_1=-R_2 (mm):

102.50

f/#:

3.33

Focal Length Specification Wavelength (nm):

587.6

Focal Length Tolerance (%):

±1

Numerical Aperture NA:

0.15

Wavelength Range (nm):

350 - 2200

Regulatory Compliance

RoHS 2015:

Compliant

Certificate of Conformance:

View

Reach 235:

Compliant

PRODUCT DETAILS

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- UV Fused Silica DCX Lenses Available
- Anti-Reflection Coating Options: MgF$_2$, VIS 0°, VIS-NIR, NIR I, NIR II, VIS-EXT, and YAG-BBAR

TECHSPEC® Uncoated 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 canceled due to the symmetric lens design. TECHSPEC® Uncoated Double-Convex Lenses resist the effects from various aberrations in a lens design that are ultimately seen in performance and affect modulation transfer function (MTF), spot size, telecentricity, depth of field (DOF), and others. These lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

## TECHNICAL INFORMATION
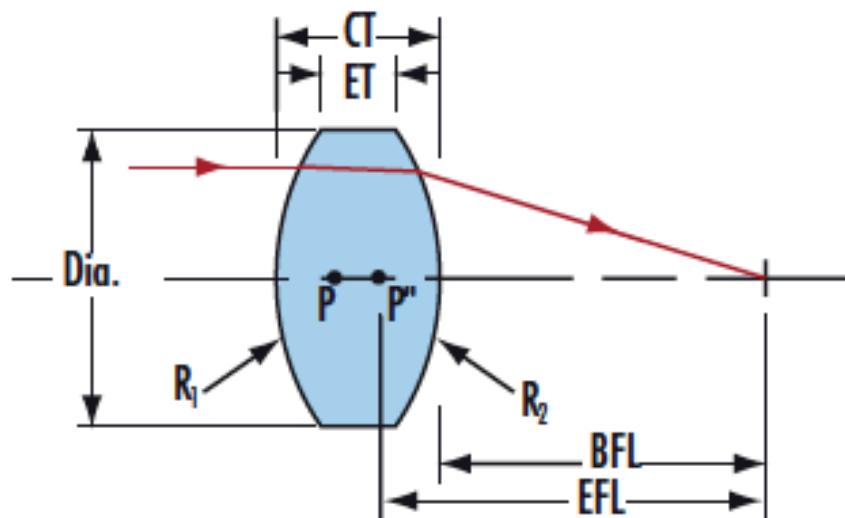
Uncoated N-BK7 Typical Transmission
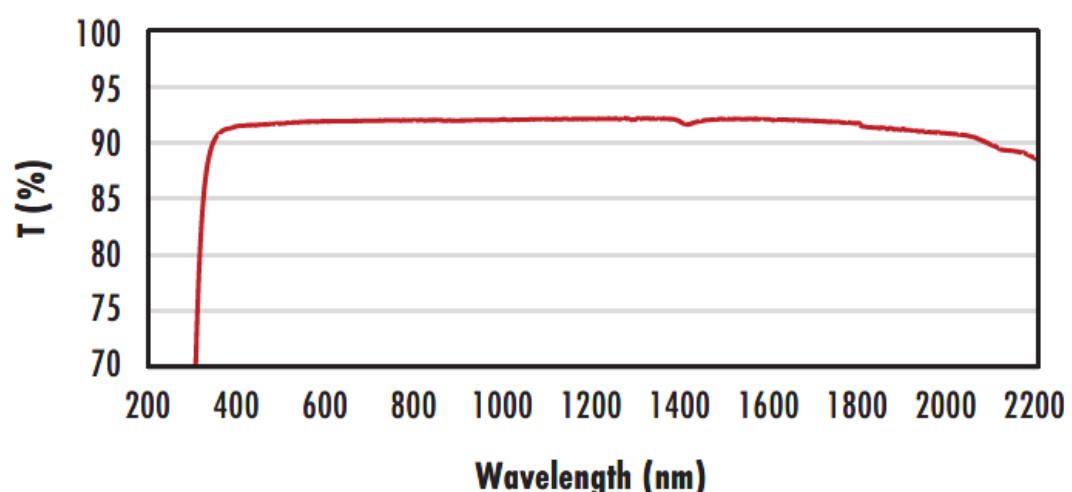
Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

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N-BK7 with MgF$_2$ Coating Typical Transmission
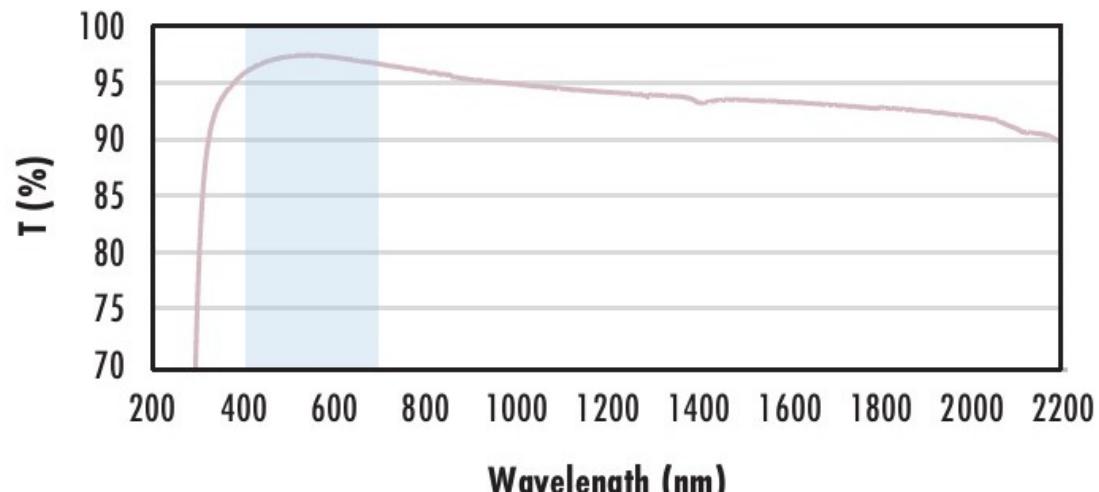
Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.

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

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

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

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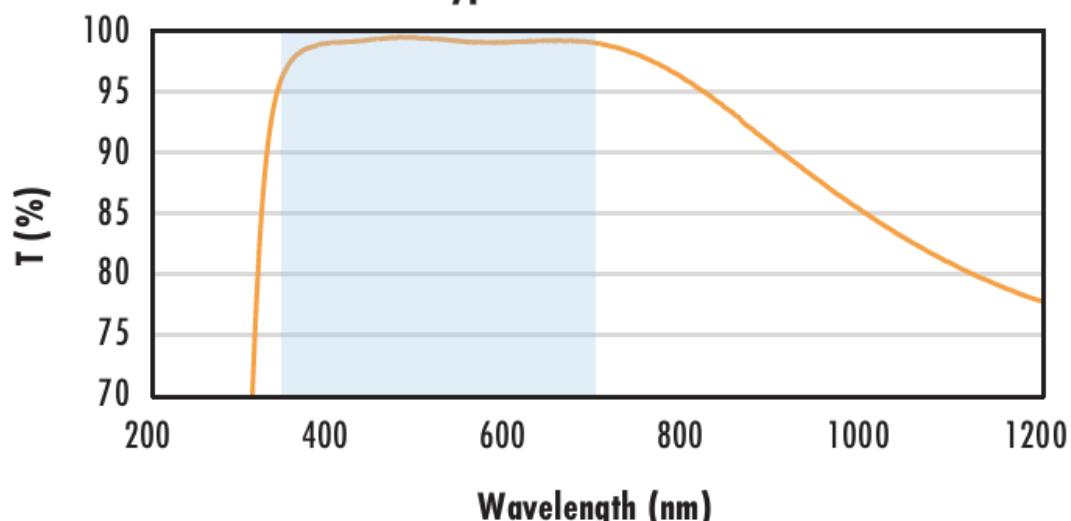
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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

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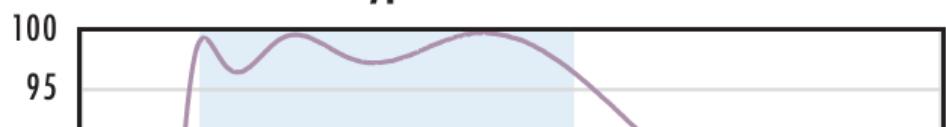
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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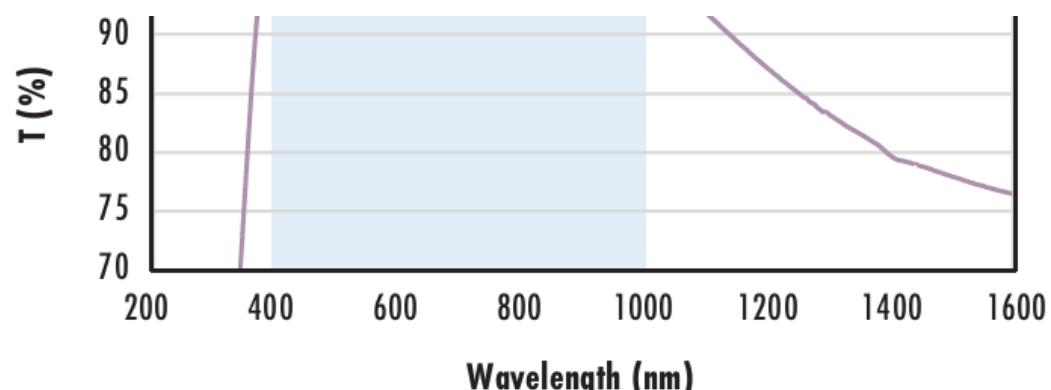
wavelength range, with the following specification:

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

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

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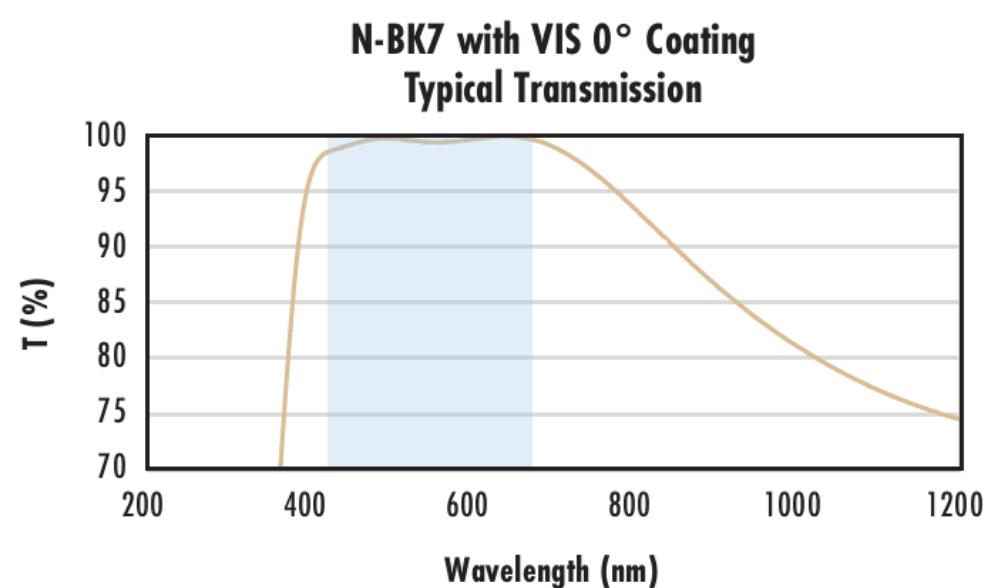
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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

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

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

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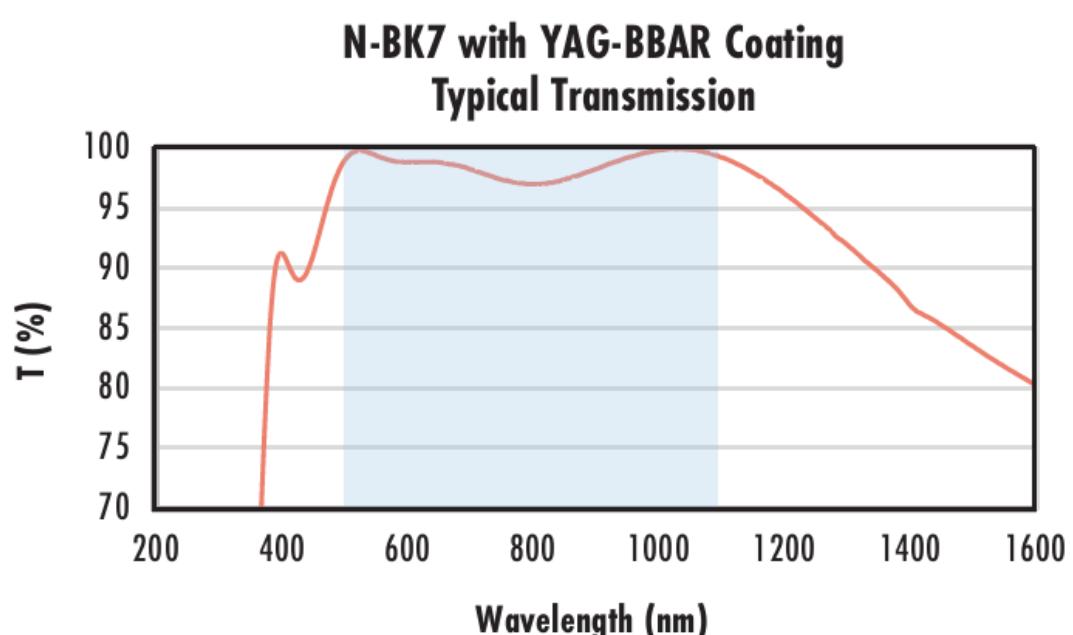
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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.

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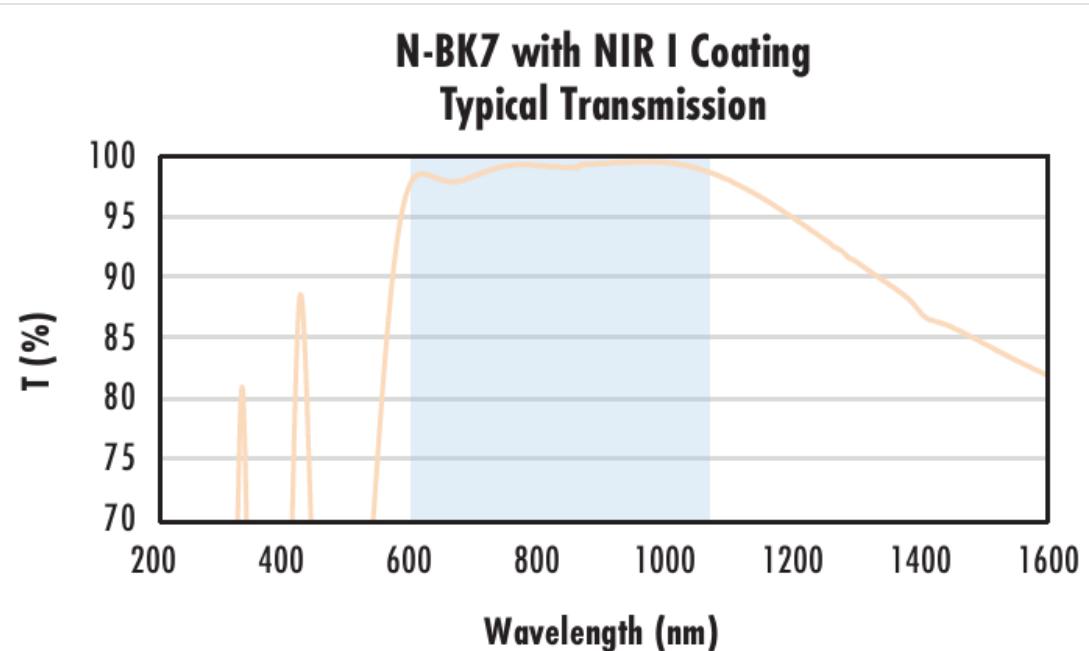
Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

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

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

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N-BK7 with NIR II Coating
Typical Transmission
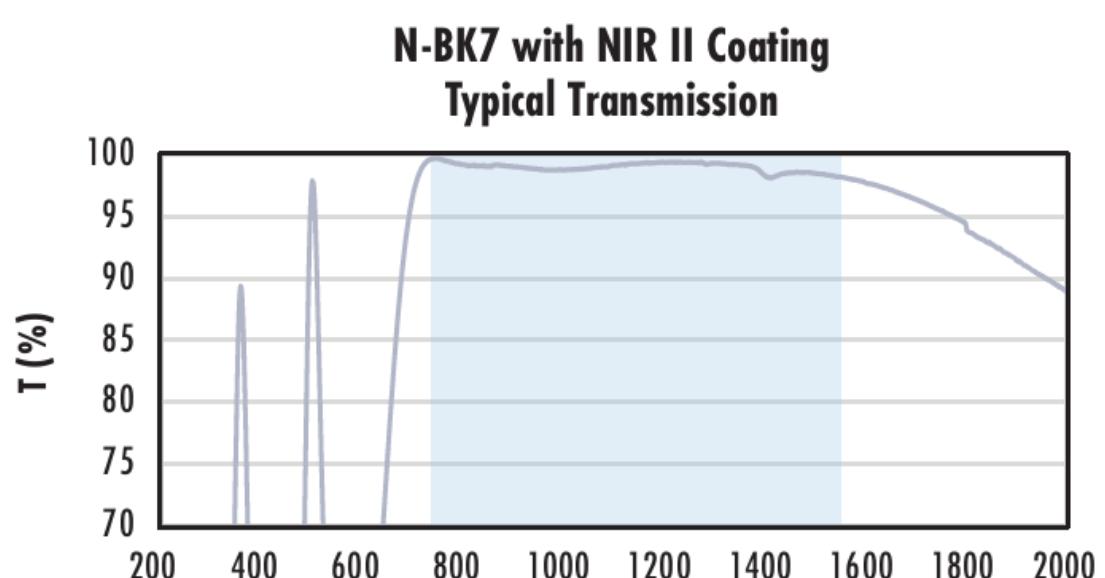
Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

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.

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Wavelength (nm)	

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