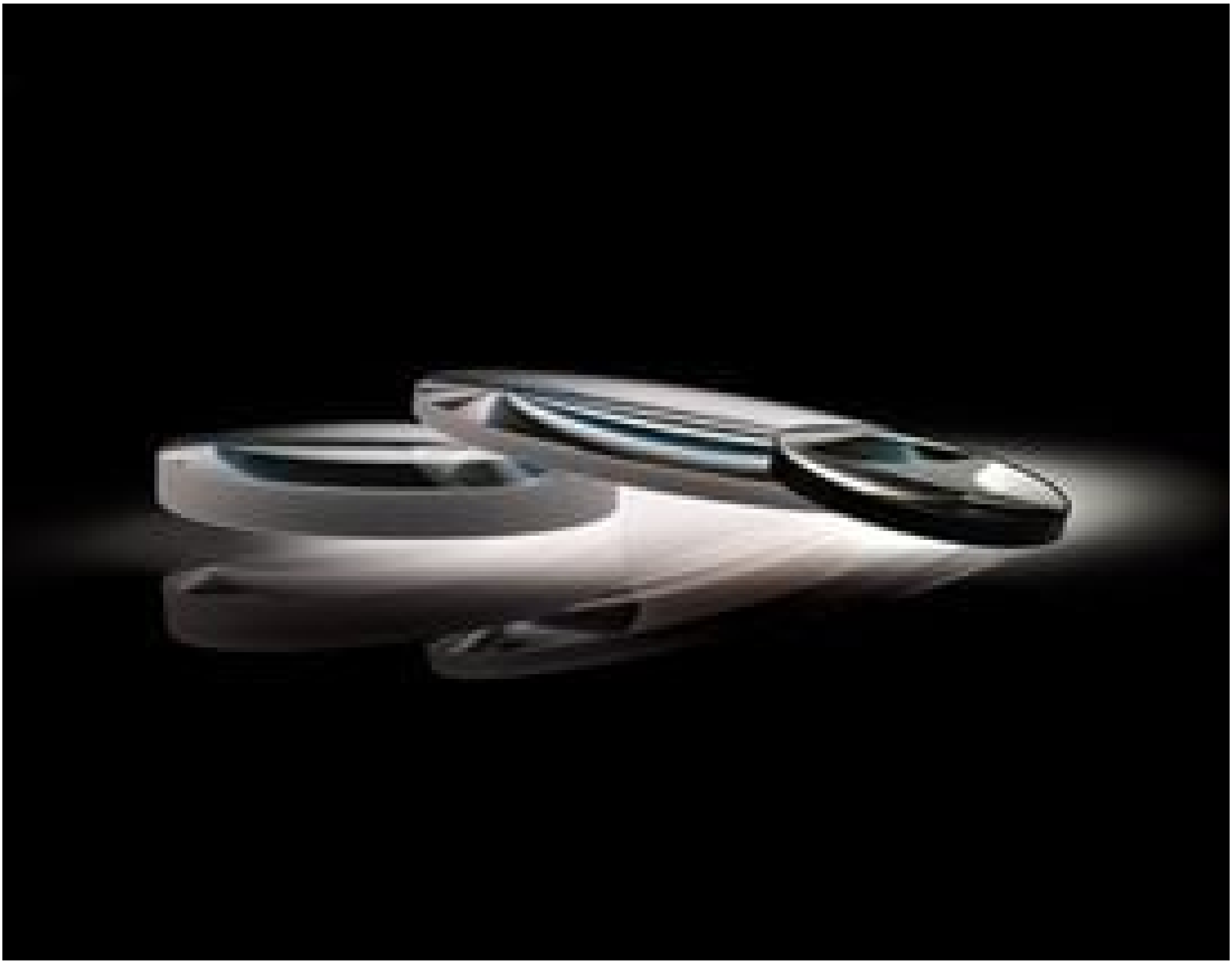
# TECHSPEC® 25mm Dia. x 40mm FL, NIR II Coated, Double-Convex Lens



Stock **#67-650** **2 In Stock**

Other Coating Options

- 1 + **C$69**.17

**ADD TO CART**

| Volume Pricing | |
|---|---|
| Qty 1-9 | **C$69.17** each |
| Qty 10-24 | **C$61.99** each |
| Qty 25-99 | **C$55.57** each |
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## SPECIFICATIONS

### General

**Type:**

Double-Convex Lens

## Physical & Mechanical Properties

| | |
|---|---|
| **Diameter (mm):** | 25.00 +0.0/-0.025 |
| **Centering (arcmin):** | <1 |
| **Center Thickness CT (mm):** | 5.30 |
| **Center Thickness Tolerance (mm):** | ±0.10 |
| **Edge Thickness ET (mm):** | 1.34 |
| **Clear Aperture CA (mm):** | 24.00 |

## Optical Properties

| | |
|---|---|
| **Back Focal Length BFL (mm):** | 38.21 |
| **Effective Focal Length EFL (mm):** | 40.00 |
| **Coating:** | NIR II (750-1550nm) |
| **Coating Specification:** | $R_{abs}$ ≤1.5% @ 750 - 800nm<br>$R_{abs}$ ≤1.0% @ 800 - 1550nm<br>$R_{avg}$ ≤0.7% @ 750 - 1550nm |
| **Substrate:** | N-BK7 |
| **Surface Quality:** | 40-20 |
| **Power (P-V) @ 632.8nm:** | 1.5λ |
| **Irregularity (P-V) @ 632.8nm:** | λ/4 |
| **Radius $R_1$=-$R_2$ (mm):** | 40.42 |
| **f/#:** | 1.6 |
| **Focal Length Specification Wavelength (nm):** | 587.6 |
| **Focal Length Tolerance (%):** | ±1.00 |
| **Numerical Aperture NA:** | 0.31 |
| **Wavelength Range (nm):** | 750 - 1550 |
| **Damage Threshold, Reference:** | 8 J/cm$^2$ @ 1064nm, 10ns |

## Regulatory Compliance

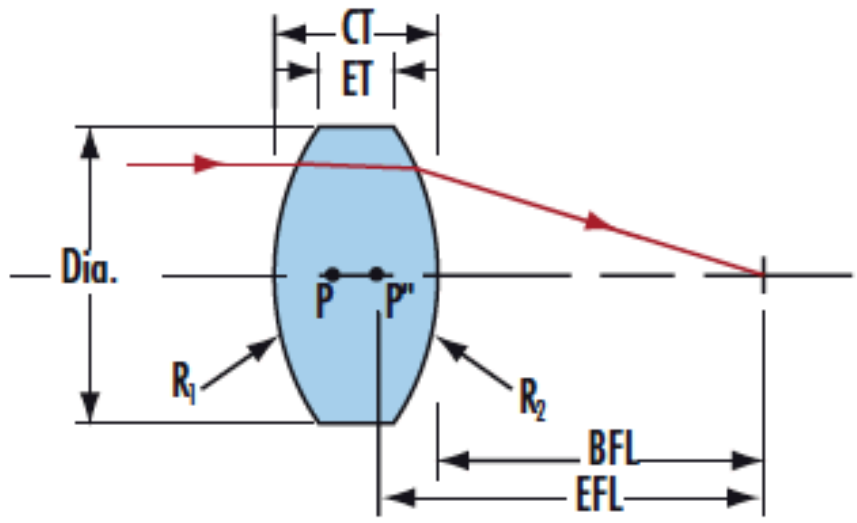
| | |
|---|---|
| **RoHS 2015:** | Compliant |
| **Certificate of Conformance:** | View |
| **Reach 235:** | Compliant |

# PRODUCT DETAILS

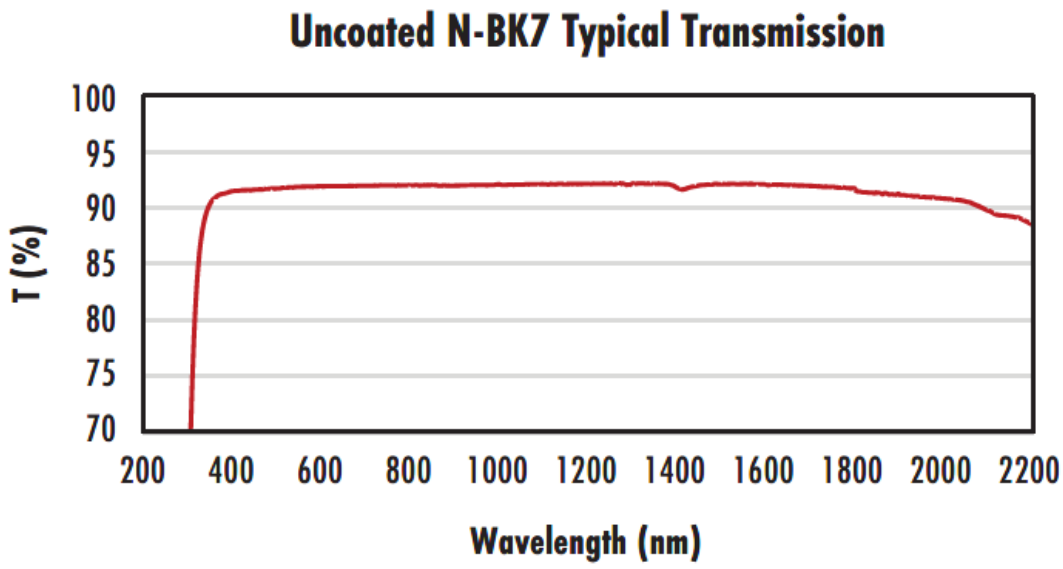
- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Minimize Aberrations Including Spherical and Coma
- UV Fused Silica DCX Lenses Available
- Other Coating Options Available: Uncoated, $MgF_2$, VIS 0°, NIR I, VIS-EXT, VIS-NIR, and YAG-BBAR

TECHSPEC® NIR II 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® NIR II Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

# TECHNICAL INFORMATION




N-BK7




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

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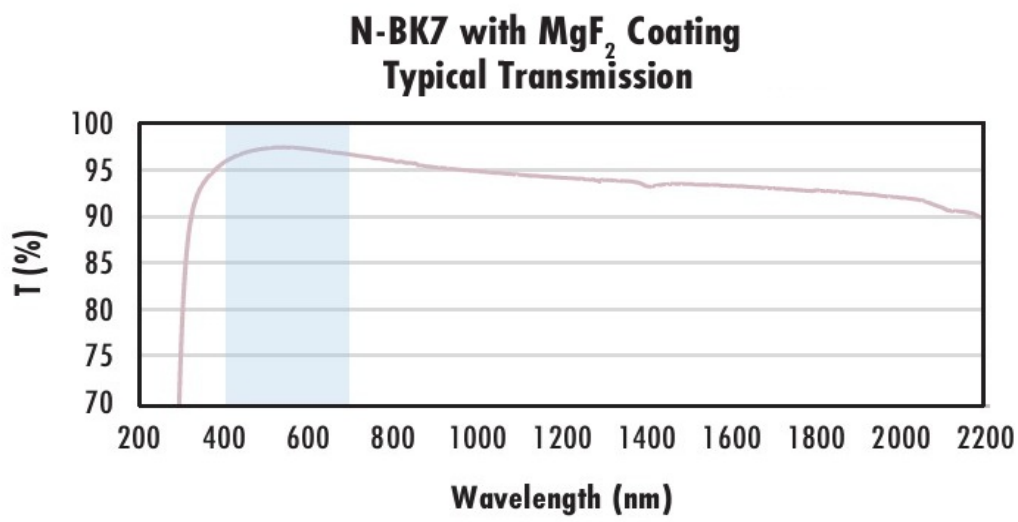


Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.

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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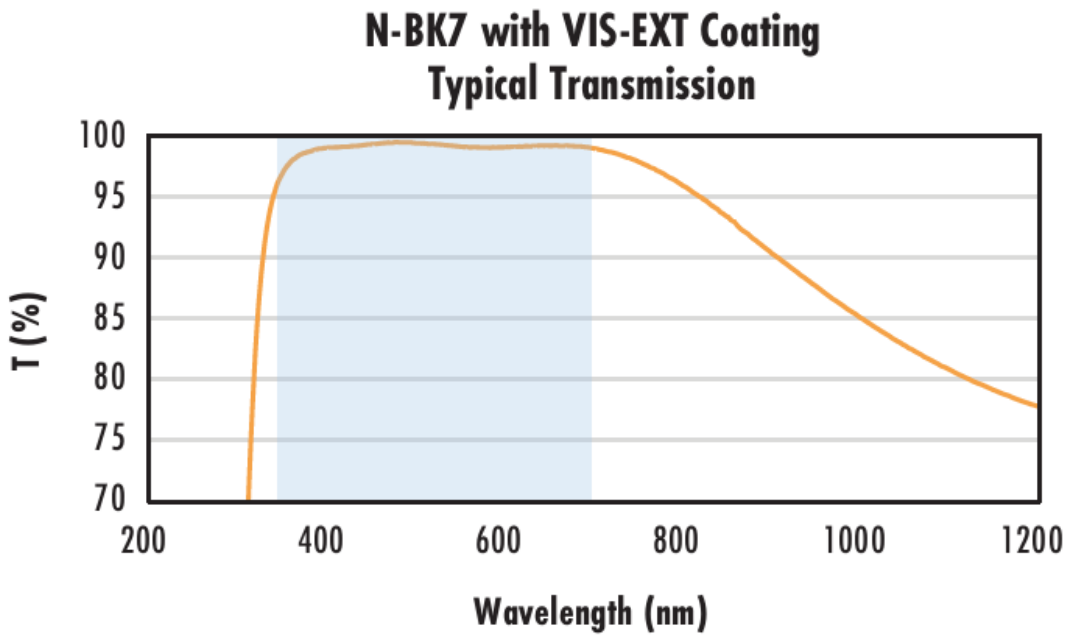


Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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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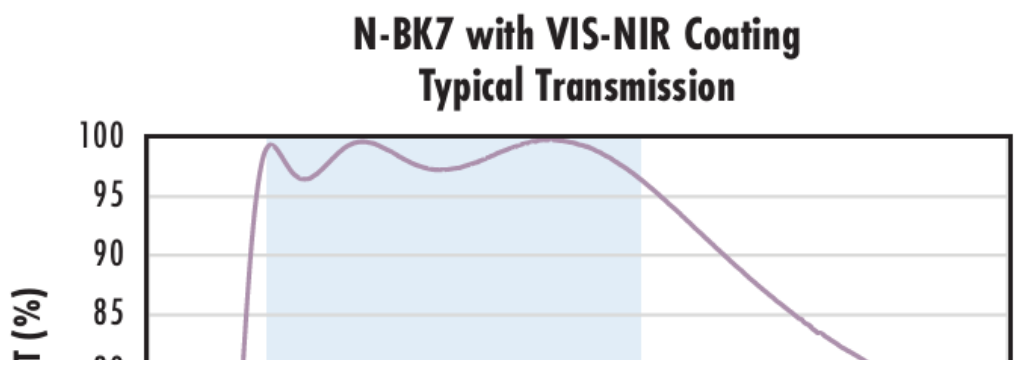
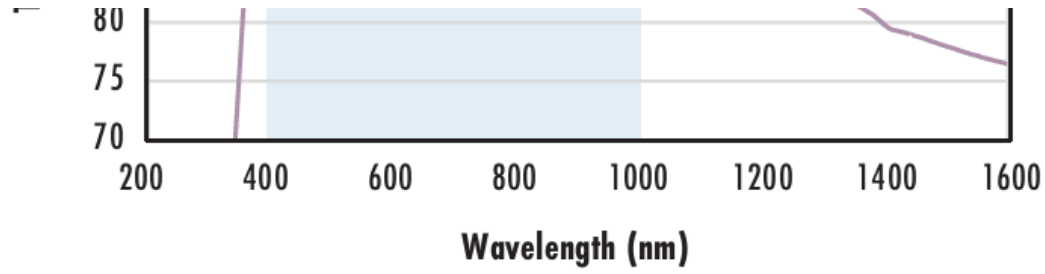



Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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

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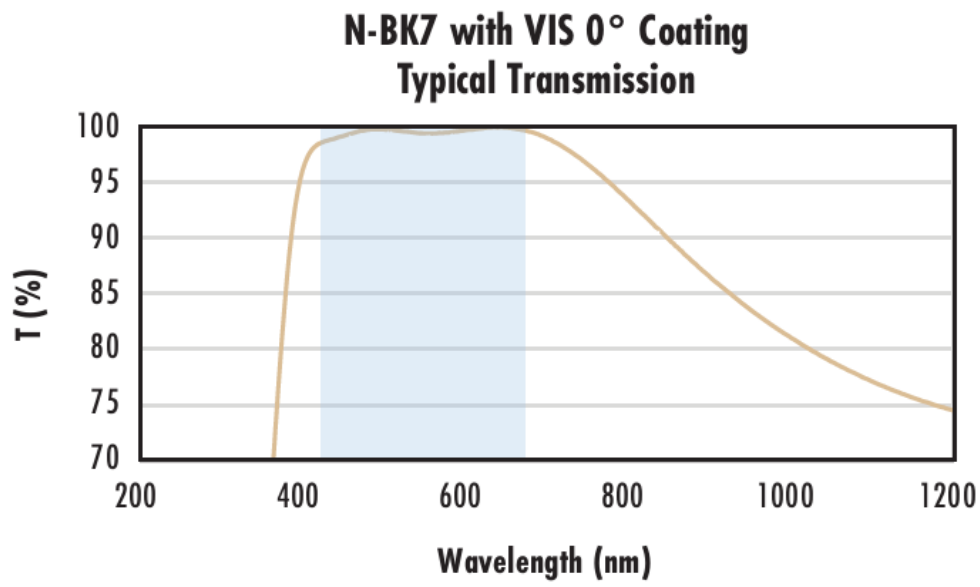


Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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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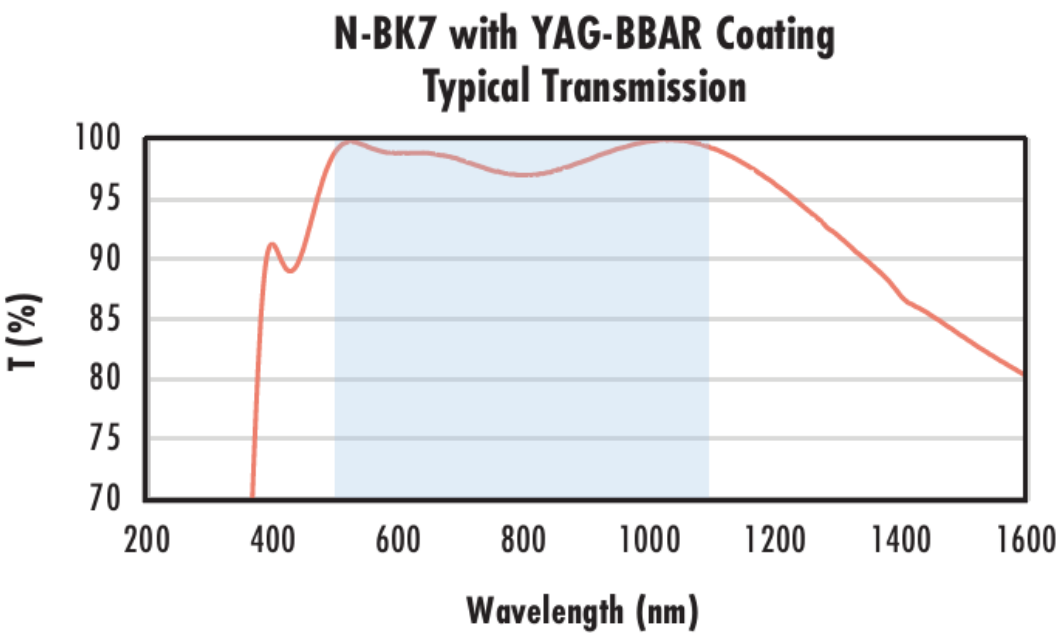


Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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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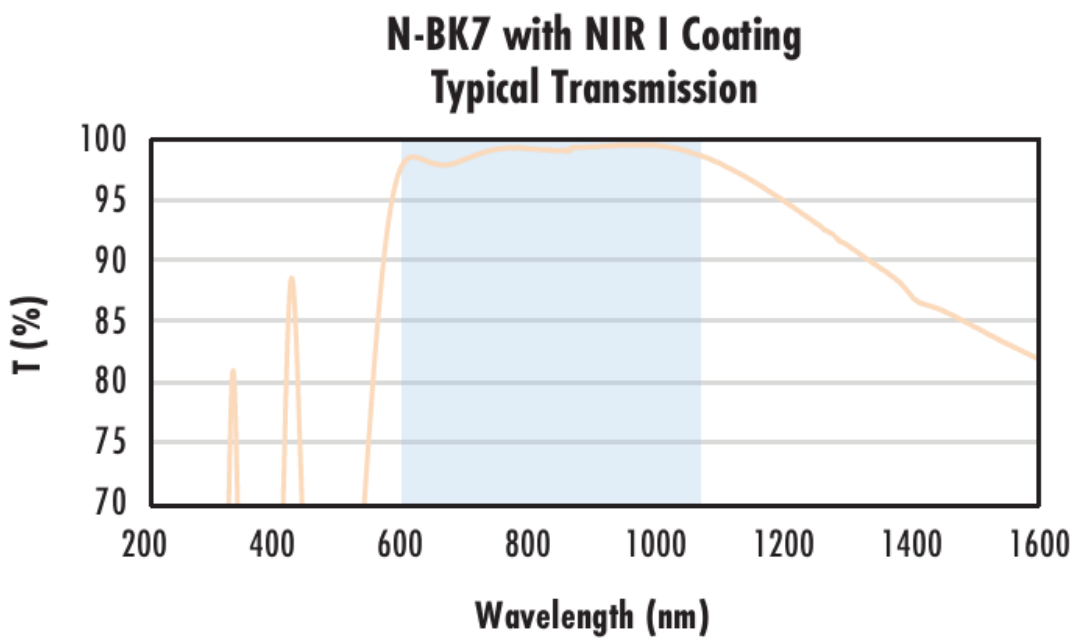


Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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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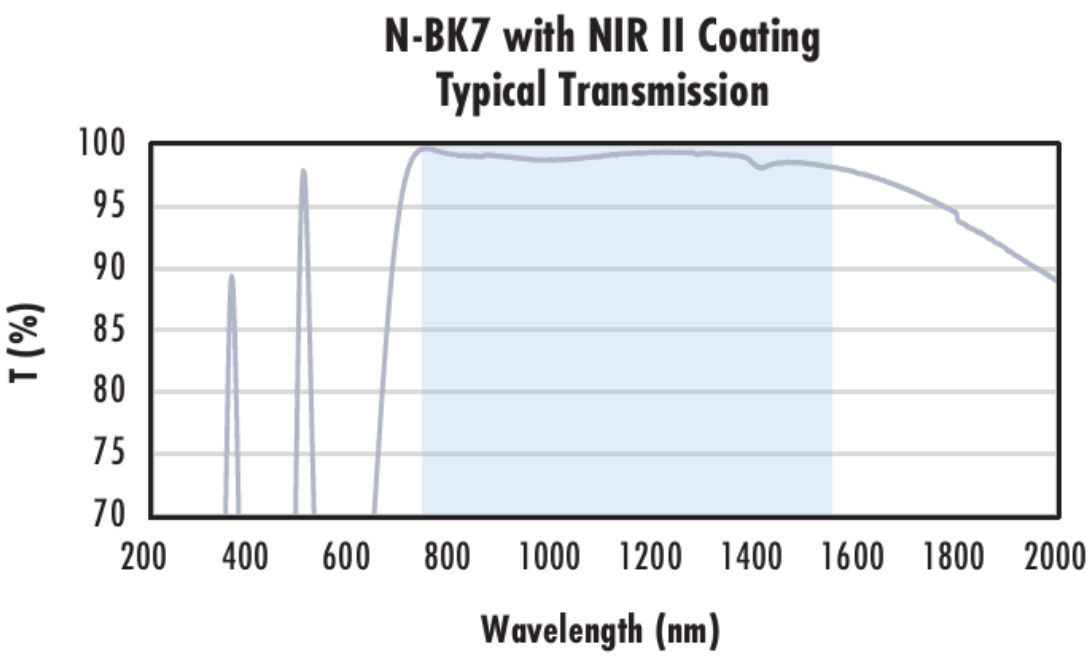


Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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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## 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