

TECHSPEC<sup>®</sup> 9mm Dia. x 27mm FL Uncoated, Double-Convex Lens



Stock **#45-155** 5 In Stock

[Other Coating Options](#)

-

1

+

€33<sup>.25</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | €33,25 each                   |
| Qty 10-24      | €30,00 each                   |
| Qty 25-99      | €26,50 each                   |
| Need More?     | <a href="#">Request Quote</a> |

!

 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Double-Convex Lens

Type:

Physical & Mechanical Properties

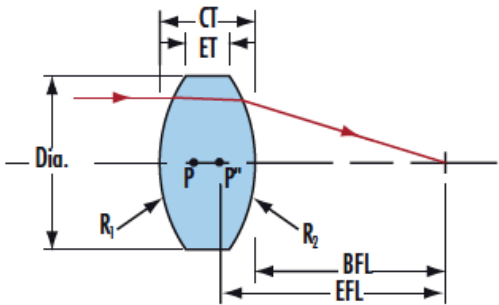
|                       |                                             |
|-----------------------|---------------------------------------------|
| 9.00 +0.0/-0.025      | Diameter (mm):                              |
| <1                    | Centering (arcmin):                         |
| Protective as needed  | Bevel:                                      |
| 2.74                  | Center Thickness CT (mm):                   |
| ±0.05                 | Center Thickness Tolerance (mm):            |
| 2.00                  | Edge Thickness ET (mm):                     |
| 8.1                   | Clear Aperture CA (mm):                     |
| Optical Properties    |                                             |
| 26.08                 | Back Focal Length BFL (mm):                 |
| 27.00                 | Effective Focal Length EFL (mm):            |
| Uncoated              | Coating:                                    |
| N-BK7                 | Substrate: □                                |
| 40-20                 | Surface Quality:                            |
| 1.5λ                  | Power (P-V) @ 632.8nm:                      |
| λ/4                   | Irregularity (P-V) @ 632.8nm:               |
| 27.43                 | Radius R <sub>1</sub> =R <sub>2</sub> (mm): |
| 3.00                  | f/#:                                        |
| 587.6                 | Focal Length Specification Wavelength (nm): |
| ±1                    | Focal Length Tolerance (%):                 |
| 0.17                  | Numerical Aperture NA:                      |
| 350 - 2200            | Wavelength Range (nm):                      |
| Regulatory Compliance |                                             |
| Compliant             | RoHS 2015:                                  |
| View                  | Certificate of Conformance:                 |
| Compliant             | Reach 235:                                  |

## Product Details

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Anti-Reflection Coating Options: [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)

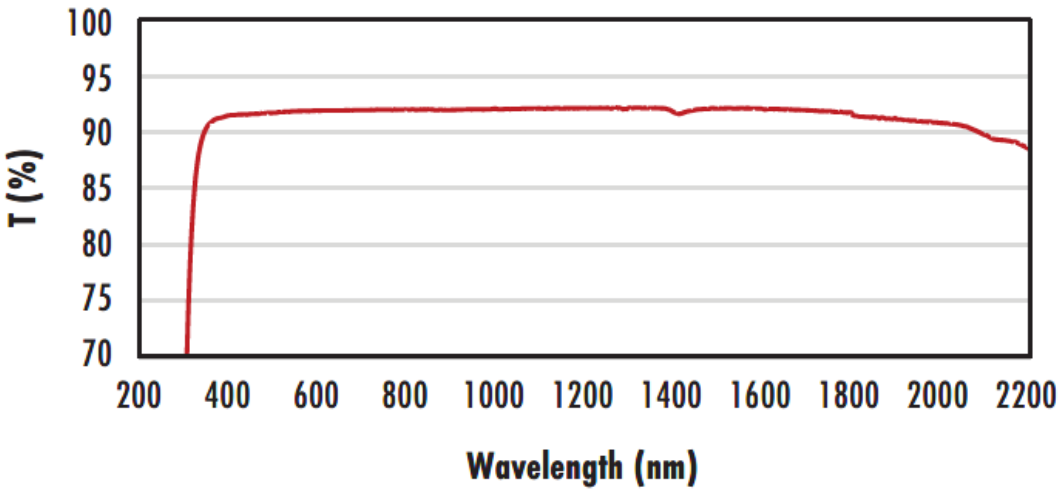
TECHSPEC® Uncoated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 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



N-BK7

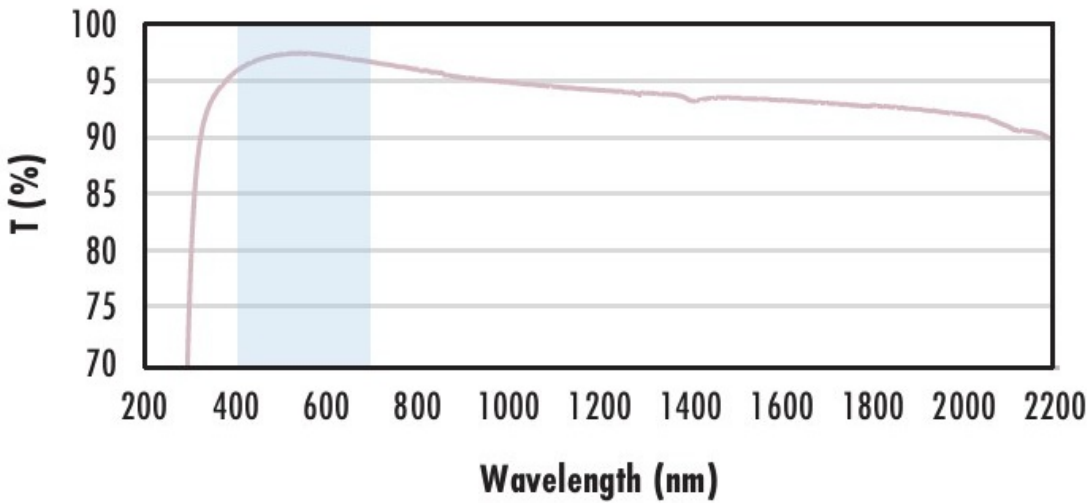
Uncoated N-BK7 Typical Transmission



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.

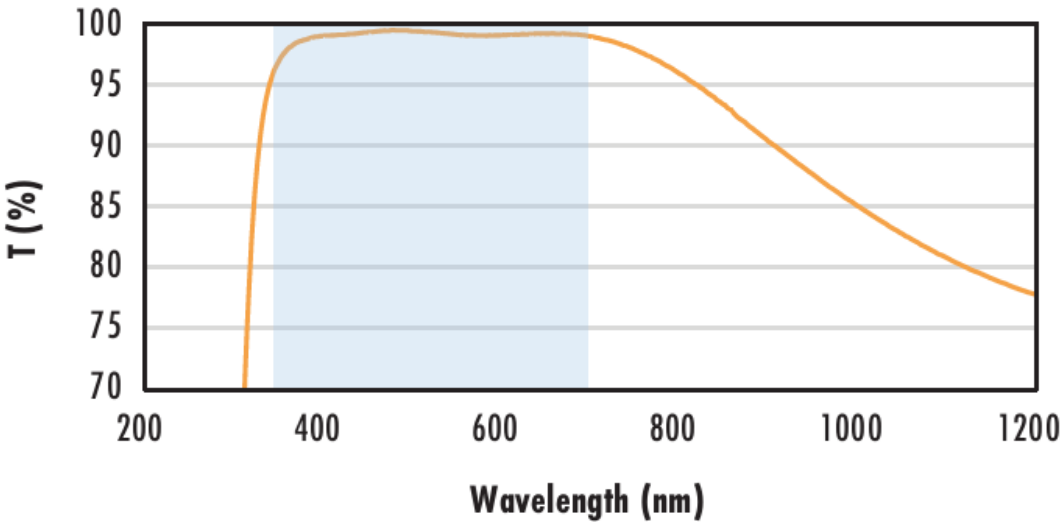
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

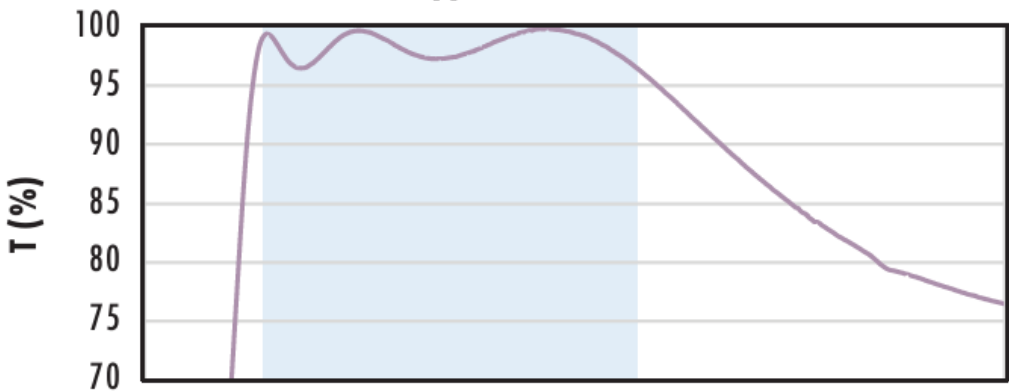
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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



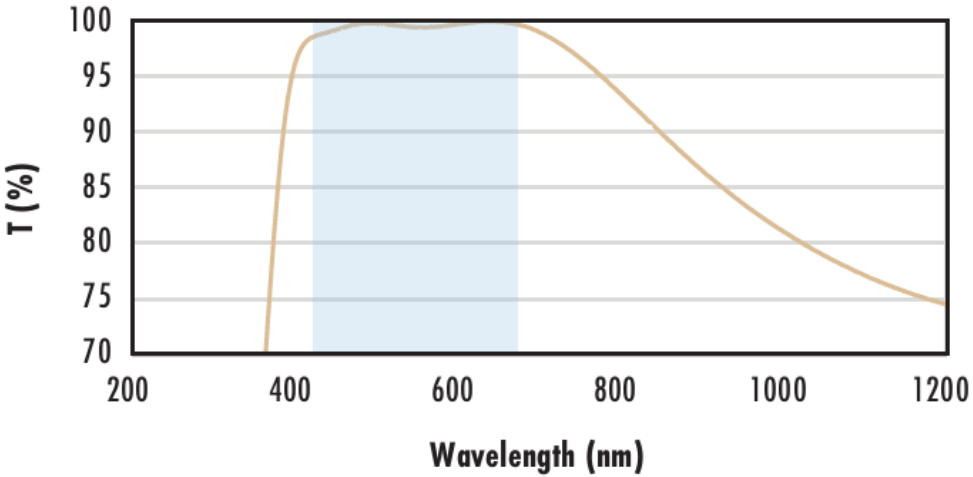
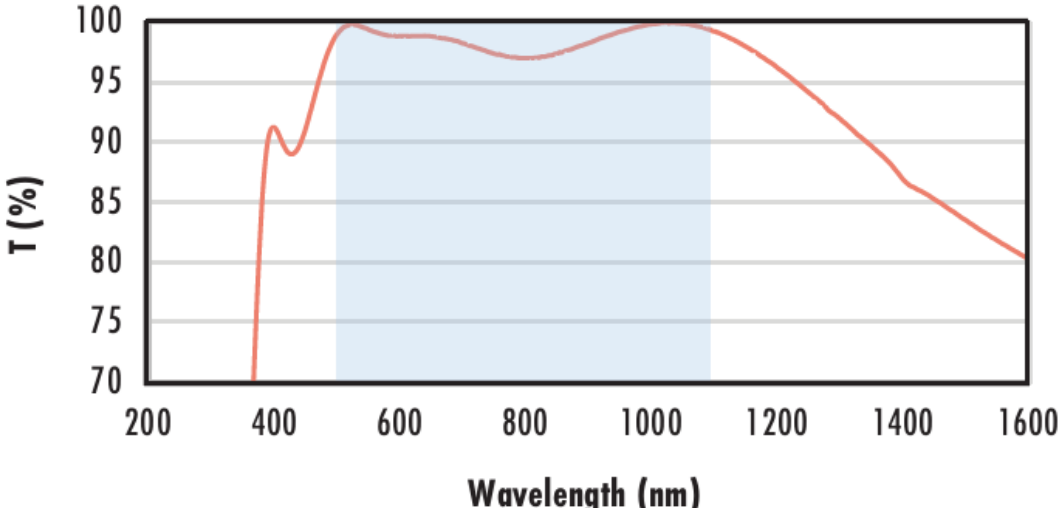
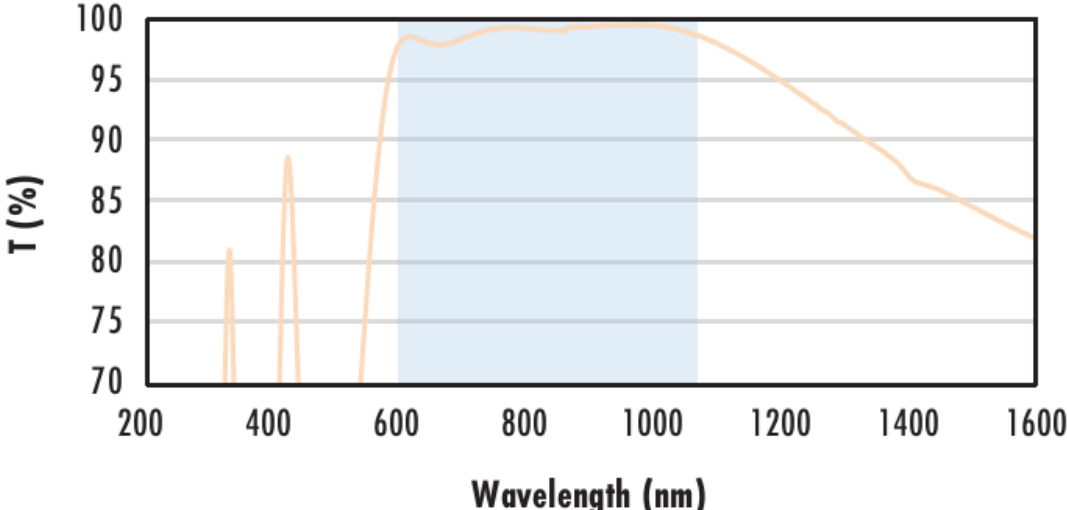
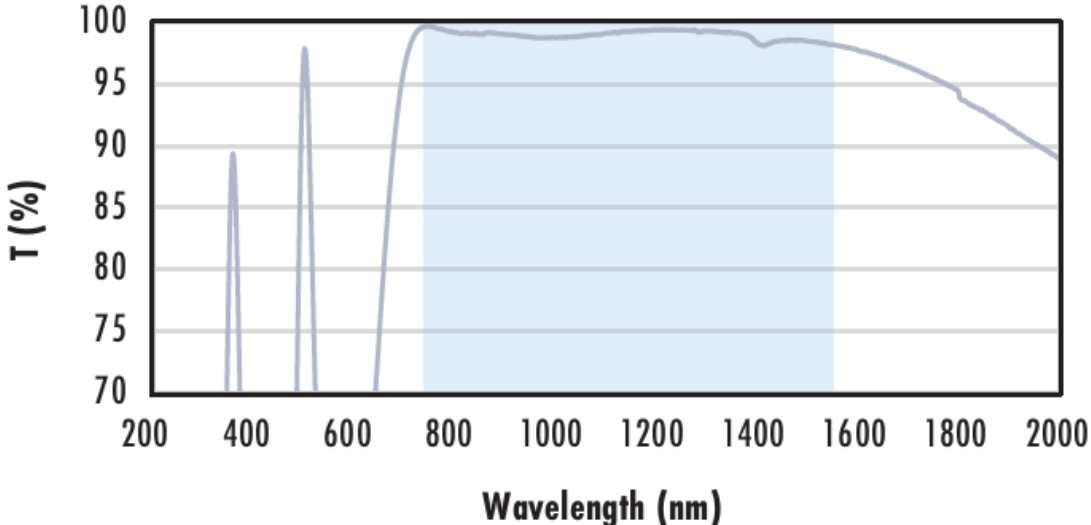
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

$R_{abs} \leq 0.25\%$  @ 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.

[Click Here to Download Data](#)

|                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>2004006008001000120014001600</div> <div>Wavelength (nm)</div>                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <div><div>N-BK7 with VIS 0° Coating</div><div>Typical Transmission</div><div></div></div>    | <p>Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.4\%</math> @ 425 - 675nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                          |
| <div><div>N-BK7 with YAG-BBAR Coating</div><div>Typical Transmission</div><div></div></div> | <p>Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 0.25\%</math> @ 532nm<br/><math>R_{abs} \leq 0.25\%</math> @ 1064nm<br/><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>           |
| <div><div>N-BK7 with NIR I Coating</div><div>Typical Transmission</div><div></div></div>   | <p>Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\%</math> @ 600 - 1050nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                       |
| <div><div>N-BK7 with NIR II Coating</div><div>Typical Transmission</div><div></div></div>  | <p>Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.5\%</math> @ 750 - 800nm<br/><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm<br/><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |

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

;