

TECHSPEC<sup>®</sup> 10mm Dia. x 100mm FL, NIR I Coated, Double-Convex Lens



Stock **#63-638** 20+ In Stock

☐ [Other Coating Options](#)

-

1

+

C\$65<sup>.10</sup>

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| Volume Pricing |                               |
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| Qty 1-9        | C\$65.10 each                 |
| Qty 10-24      | C\$58.45 each                 |
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General

Type:  
Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):  
10.00 +0.0/-0.025

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| <1                                    | Centering (arcmin):                                   |
| Protective as needed                  | Bevel:                                                |
| 2.50                                  | Center Thickness CT (mm):                             |
| ±0.05                                 | Center Thickness Tolerance (mm):                      |
| 2.26                                  | Edge Thickness ET (mm):                               |
| 9.00                                  | Clear Aperture CA (mm):                               |
| Optical Properties                    |                                                       |
| 99.17                                 | Back Focal Length BFL (mm):                           |
| 100.00                                | Effective Focal Length EFL (mm):                      |
| NIR I (600-1050nm)                    | Coating:                                              |
| R <sub>avg</sub> ≤0.5% @ 600 - 1050nm | Coating Specification:                                |
| N-BK7                                 | Substrate: <input type="checkbox"/>                   |
| 40-20                                 | Surface Quality:                                      |
| 1.5λ                                  | Power (P-V) @ 632.8nm:                                |
| λ/4                                   | Irregularity (P-V) @ 632.8nm:                         |
| 102.93                                | Radius R <sub>1</sub> =R <sub>2</sub> (mm):           |
| 10.00                                 | f/#:                                                  |
| 587.6                                 | Focal Length Specification Wavelength (nm):           |
| 0.05                                  | Numerical Aperture NA:                                |
| 600 - 1050                            | Wavelength Range (nm):                                |
| 7 J/cm² @ 1064nm, 10ns                | Damage Threshold, By Design: <input type="checkbox"/> |
| Regulatory Compliance                 |                                                       |
| Compliant                             | RoHS 2015:                                            |
| View                                  | Certificate of Conformance:                           |
| Compliant                             | Reach 235:                                            |

## Need different specs or modifications?

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](#).

## Product Details

- AR Coated to Provide <0.5% Reflectance per Surface for 600 - 1050nm
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Other Coating Options Available: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [NIR II](#), [VIS-EXT](#), [VIS-NIR](#), and [YAG-BBAR](#)

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

Technical Information



N-BK7

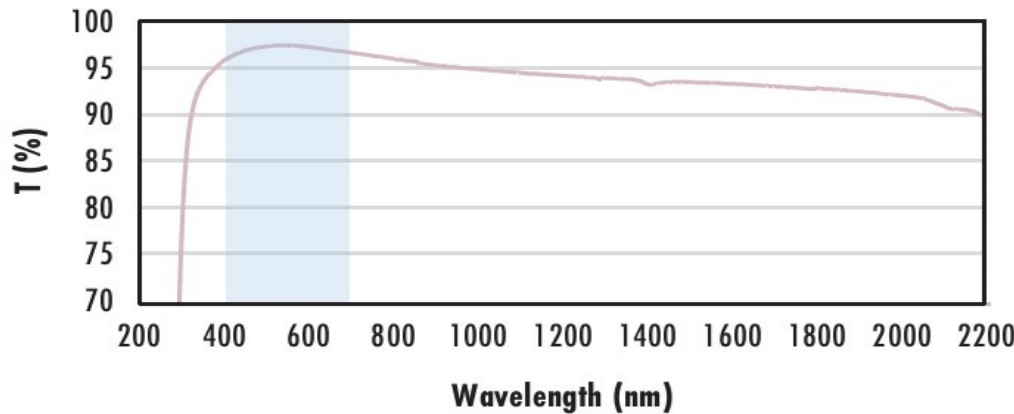
Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

N-BK7 with 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.

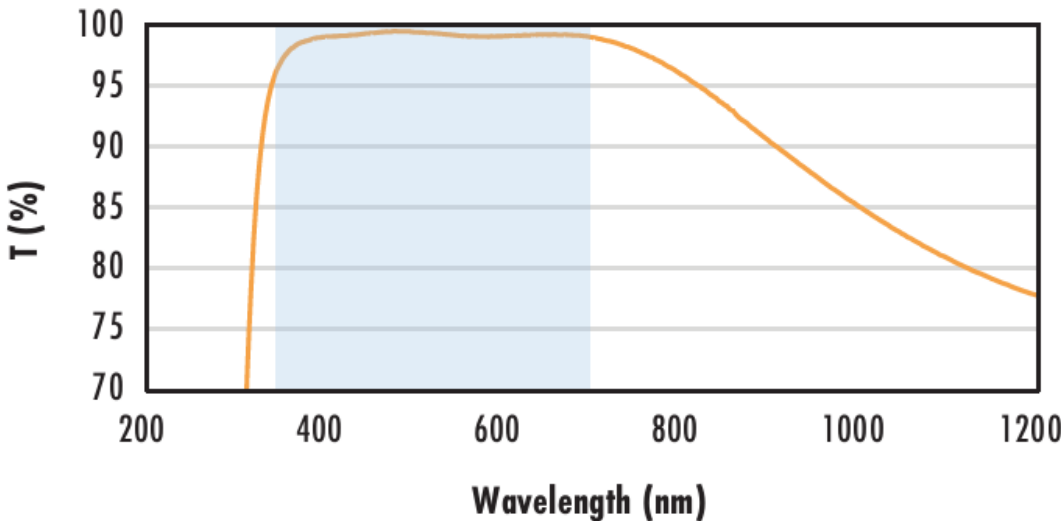
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

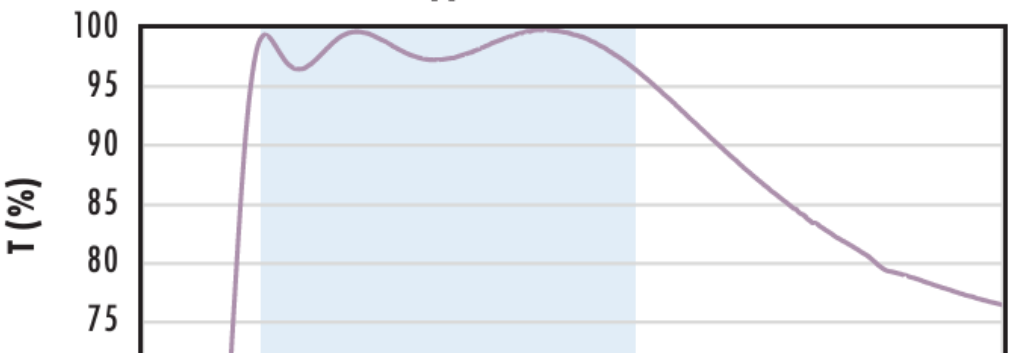
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

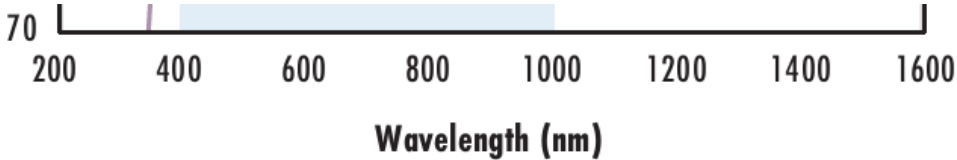
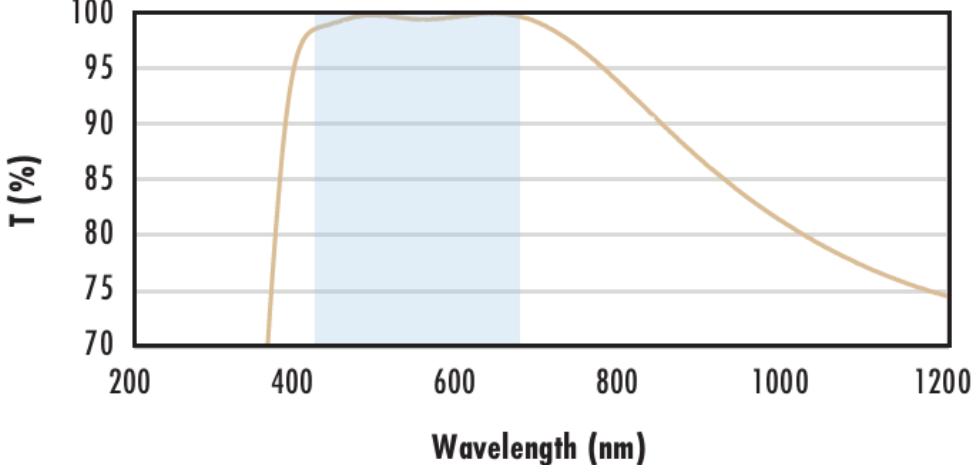
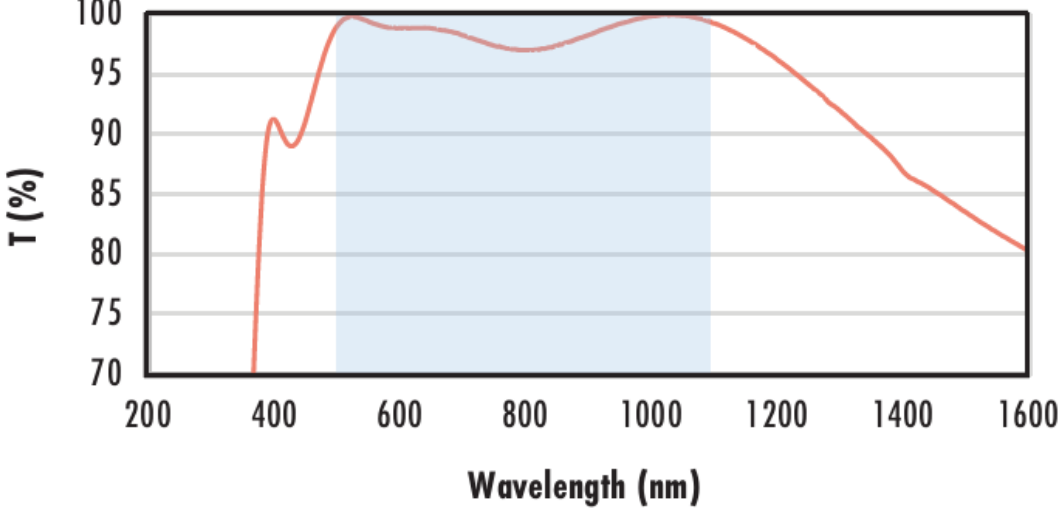
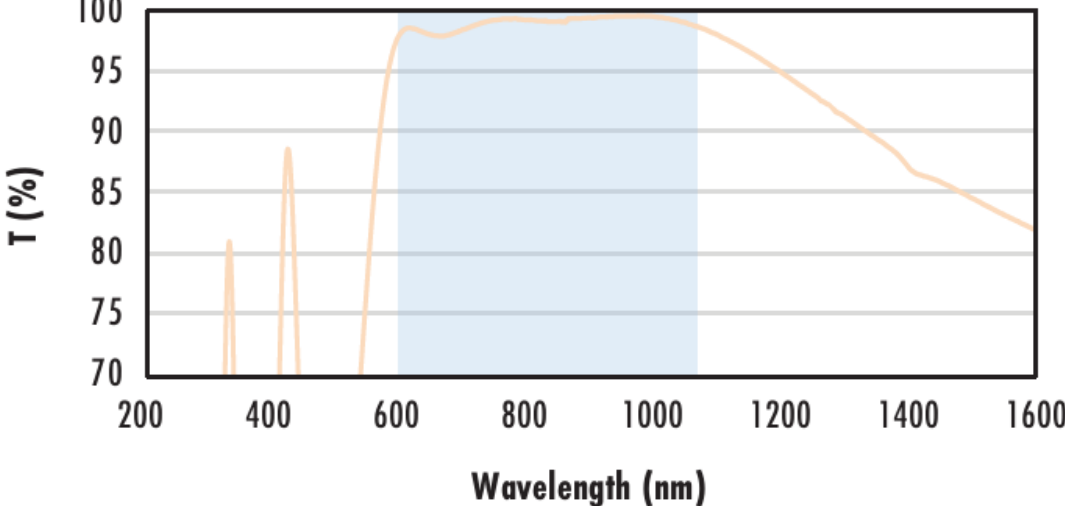
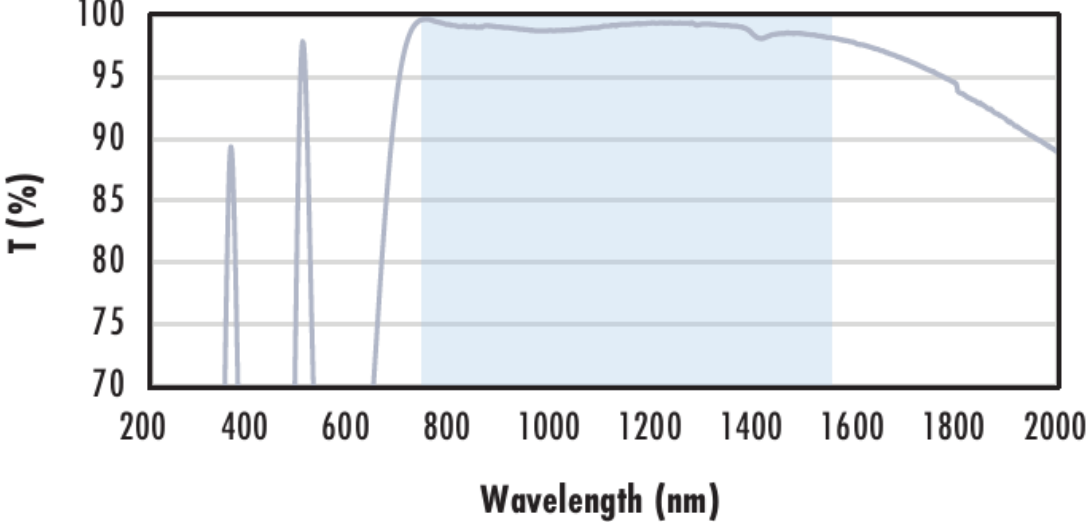
$R_{abs} \leq 0.25\% @ 880\text{nm}$

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

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

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

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|                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                            | <a href="#">Click Here to Download Data</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p data-bbox="596 270 974 359"><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1337 400 1843 451">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1337 465 1850 516">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 528 1709 552"><math>R_{avg} \leq 0.4\%</math> @ 425 - 675nm</p> <p data-bbox="1341 563 1841 614">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 626 1711 649"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                          |
| <p data-bbox="569 863 1037 952"><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1341 994 1839 1044">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1333 1056 1852 1107">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1493 1118 1692 1142"><math>R_{abs} \leq 0.25\%</math> @ 532nm</p> <p data-bbox="1493 1142 1692 1166"><math>R_{abs} \leq 0.25\%</math> @ 1064nm</p> <p data-bbox="1472 1166 1713 1190"><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</p> <p data-bbox="1341 1202 1841 1252">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 1264 1711 1288"><a href="#">Click Here to Download Data</a></p>            |
| <p data-bbox="617 1492 1008 1581"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1341 1656 1839 1706">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1333 1718 1852 1768">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1472 1780 1713 1804"><math>R_{avg} \leq 0.5\%</math> @ 600 - 1050nm</p> <p data-bbox="1341 1816 1841 1866">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 1878 1711 1902"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                             |
| <p data-bbox="606 2139 1016 2228"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1341 2261 1843 2312">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1333 2323 1852 2374">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1474 2386 1711 2410"><math>R_{abs} \leq 1.5\%</math> @ 750 - 800nm</p> <p data-bbox="1474 2410 1711 2433"><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm</p> <p data-bbox="1472 2433 1713 2457"><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</p> <p data-bbox="1341 2496 1841 2546">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 2558 1711 2582"><a href="#">Click Here to Download Data</a></p> |

# Compatible Mounts

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