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TECHSPEC<sup>®</sup> 30mm Dia. x 100mm FL, NIR I Coated, Double-Convex Lens



Stock #63-654 5 In Stock

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-

1

+

C\$88<sup>.90</sup>

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General

Type:

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

30.00 +0.0/-0.025

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| <1                                    | Centering (arcmin):                                   |
| Protective as needed                  | Bevel:                                                |
| 5.00                                  | Center Thickness CT (mm):                             |
| ±0.10                                 | Center Thickness Tolerance (mm):                      |
| 2.79                                  | Edge Thickness ET (mm):                               |
| 29.00                                 | Clear Aperture CA (mm):                               |
| Optical Properties                    |                                                       |
| 98.34                                 | 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:                         |
| 102.50                                | Radius R <sub>1</sub> =R <sub>2</sub> (mm):           |
| 3.33                                  | f/#:                                                  |
| 587.6                                 | Focal Length Specification Wavelength (nm):           |
| 0.15                                  | 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

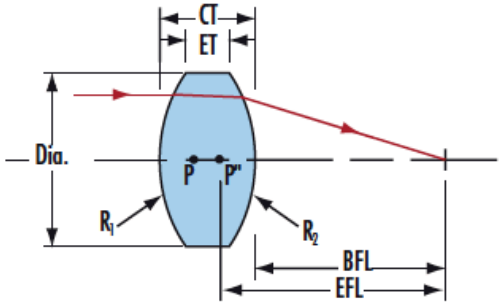
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## 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](#)

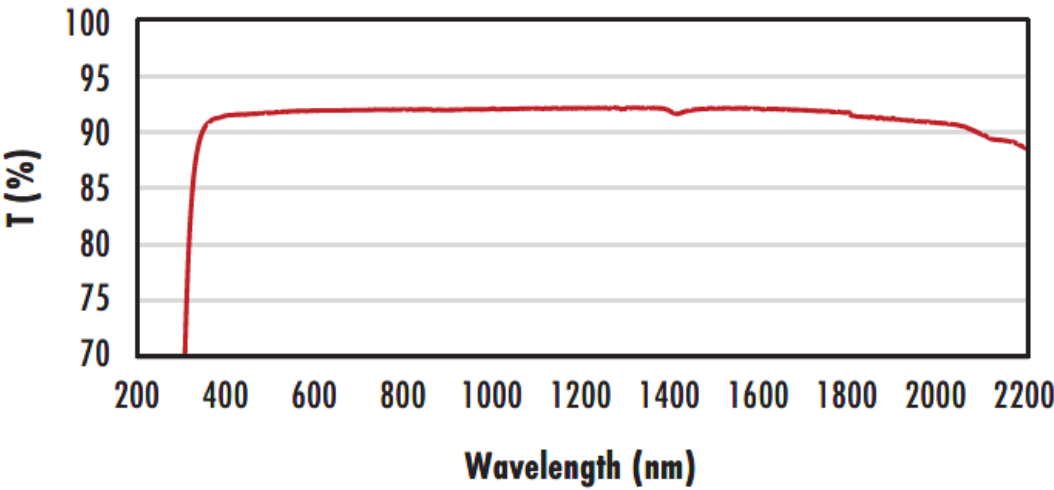
TECHSPEC® NIR I Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance)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

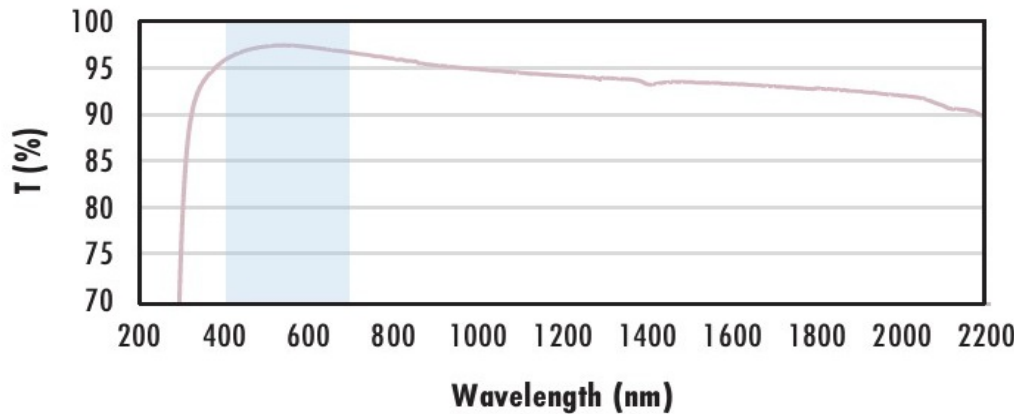
Uncoated N-BK7 Typical Transmission



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

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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.

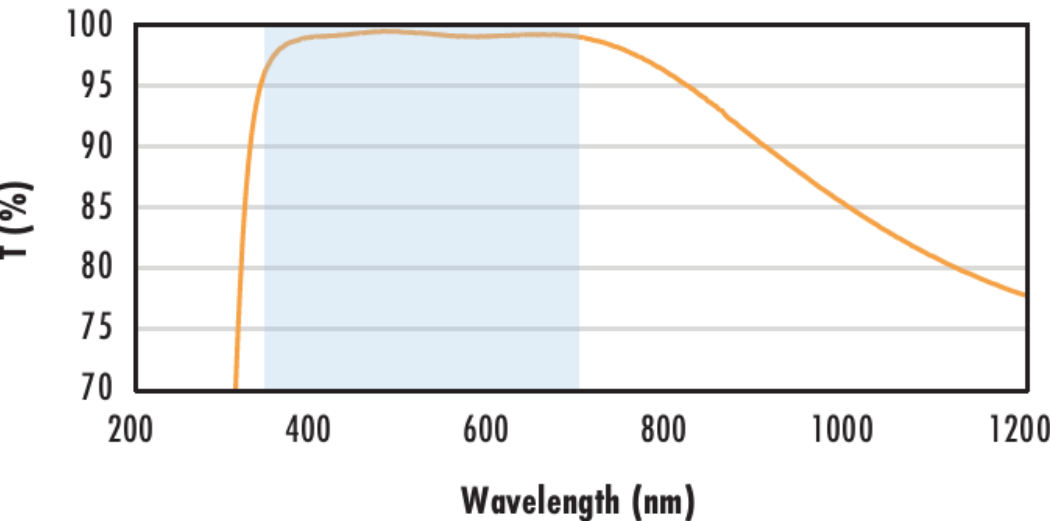
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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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.

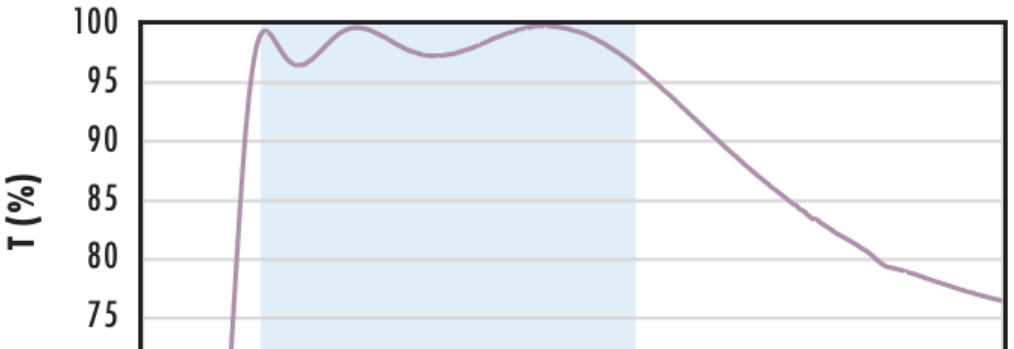
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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N-BK7 with VIS-NIR Coating Typical Transmission



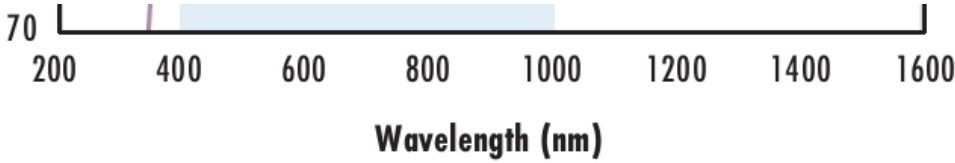
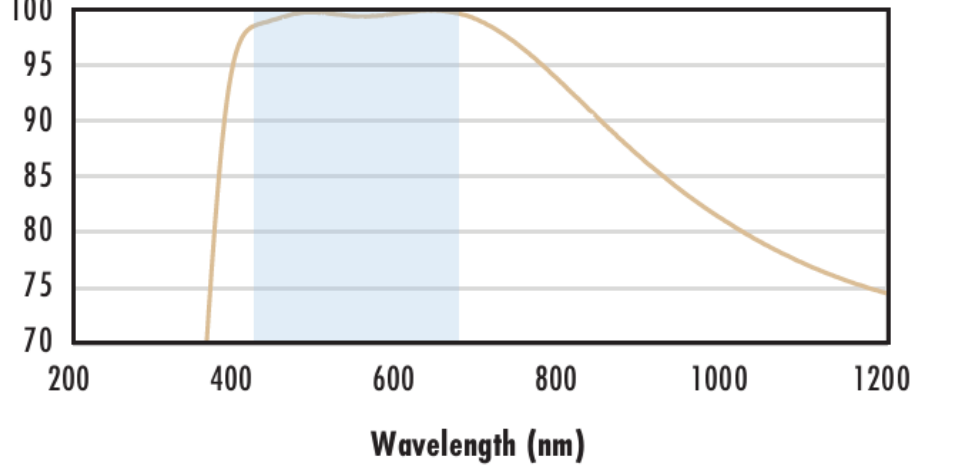
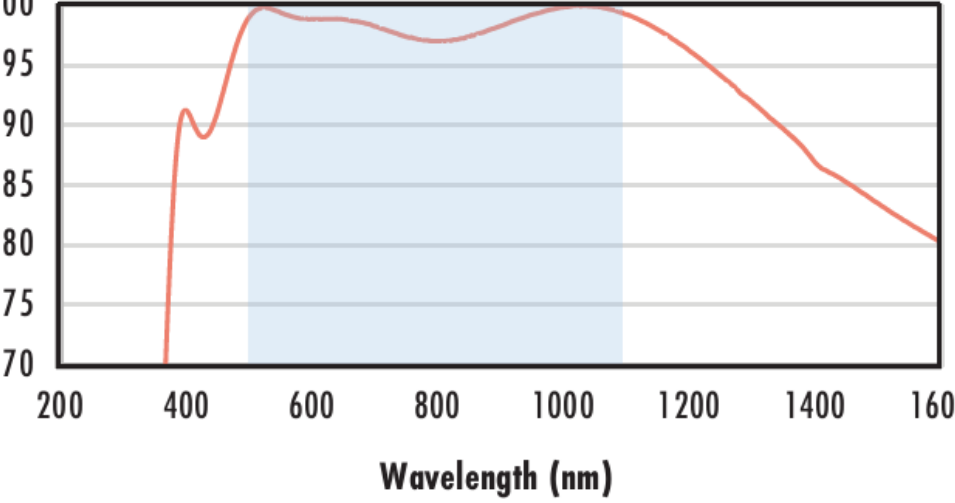
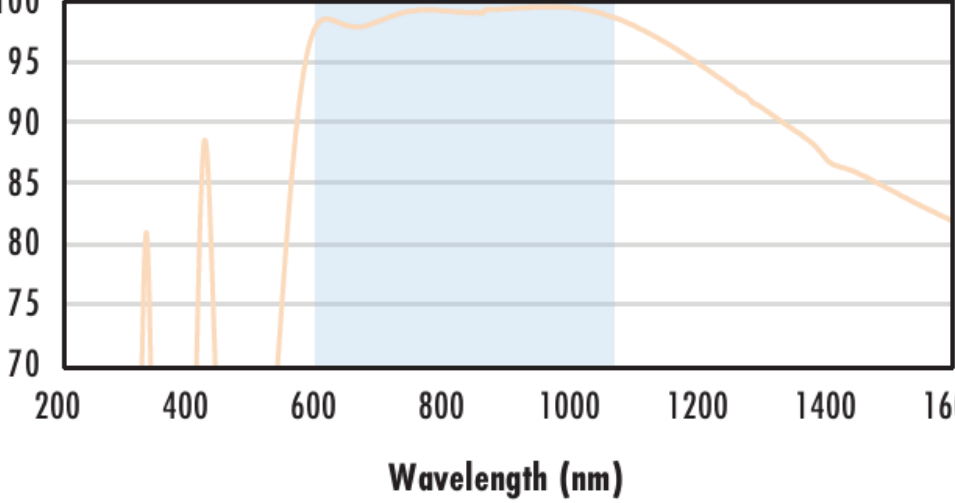
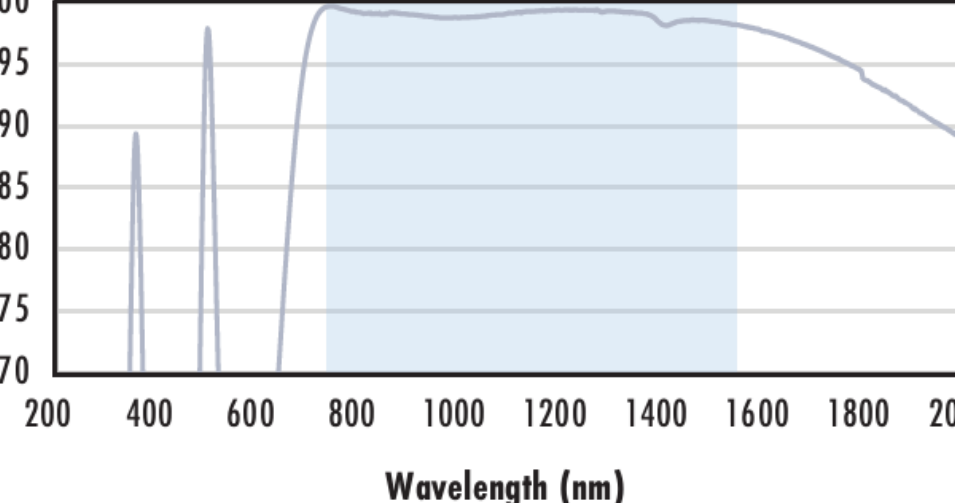
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

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

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="1339 403 1843 454">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1339 468 1850 519">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 531 1711 555"><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p data-bbox="1339 566 1839 617">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 629 1711 652"><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="1339 997 1843 1047">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1339 1062 1850 1113">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1124 1688 1148"><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math></p> <p data-bbox="1478 1148 1688 1172"><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math></p> <p data-bbox="1478 1172 1711 1196"><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p data-bbox="1339 1207 1839 1258">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1270 1711 1294"><a href="#">Click Here to Download Data</a></p>            |
| <p data-bbox="617 1492 1010 1581"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 1656 1843 1706">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1339 1721 1850 1771">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1783 1711 1807"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p data-bbox="1339 1819 1839 1869">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1881 1711 1905"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                           |
| <p data-bbox="606 2142 1016 2231"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1339 2264 1843 2315">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1339 2329 1850 2380">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 2392 1711 2415"><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math></p> <p data-bbox="1478 2415 1711 2439"><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math></p> <p data-bbox="1478 2439 1711 2463"><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p data-bbox="1339 2499 1839 2549">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 2561 1711 2585"><a href="#">Click Here to Download Data</a></p> |

# Compatible Mounts

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