

TECHSPEC<sup>®</sup> 10mm Dia. x 15mm FL, MgF<sub>2</sub> Coated, Double-Convex Lens



Stock **#63-568** **6 In Stock**

☐ [Other Coating Options](#)

-

1

+

C\$57<sup>.40</sup>

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| Qty 1-9        | C\$57.40 each                 |
| Qty 10-24      | C\$51.45 each                 |
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Product Downloads

General

Type:  
Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):  
10.00 +0.0/-0.025

|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| <1                                   | Centering (arcmin):                                   |
| Protective as needed                 | Bevel:                                                |
| 3.50                                 | Center Thickness CT (mm):                             |
| ±0.05                                | Center Thickness Tolerance (mm):                      |
| 1.77                                 | Edge Thickness ET (mm):                               |
| 9.00                                 | Clear Aperture CA (mm):                               |
| Optical Properties                   |                                                       |
| 13.80                                | Back Focal Length BFL (mm):                           |
| 15.00                                | Effective Focal Length EFL (mm):                      |
| MgF <sub>2</sub> (400-700nm)         | Coating:                                              |
| R <sub>avg</sub> ≤1.75% @400 - 700nm | 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:                         |
| 14.88                                | Radius R <sub>1</sub> =R <sub>2</sub> (mm):           |
| 1.5                                  | f/#:                                                  |
| 587.6                                | Focal Length Specification Wavelength (nm):           |
| ±1                                   | Focal Length Tolerance (%):                           |
| 0.33                                 | Numerical Aperture NA:                                |
| 400 - 700                            | Wavelength Range (nm):                                |
| 10 J/cm <sup>2</sup> @ 532nm, 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 <1.75% Reflectance per Surface for 400 - 700nm
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Other Coating Options Available: [Uncoated](#), [VIS 0°](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), [VIS-NIR](#), and [YAG-BBAR](#)

TECHSPEC® MgF<sub>2</sub> 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® MgF<sub>2</sub> 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:

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

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:

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

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

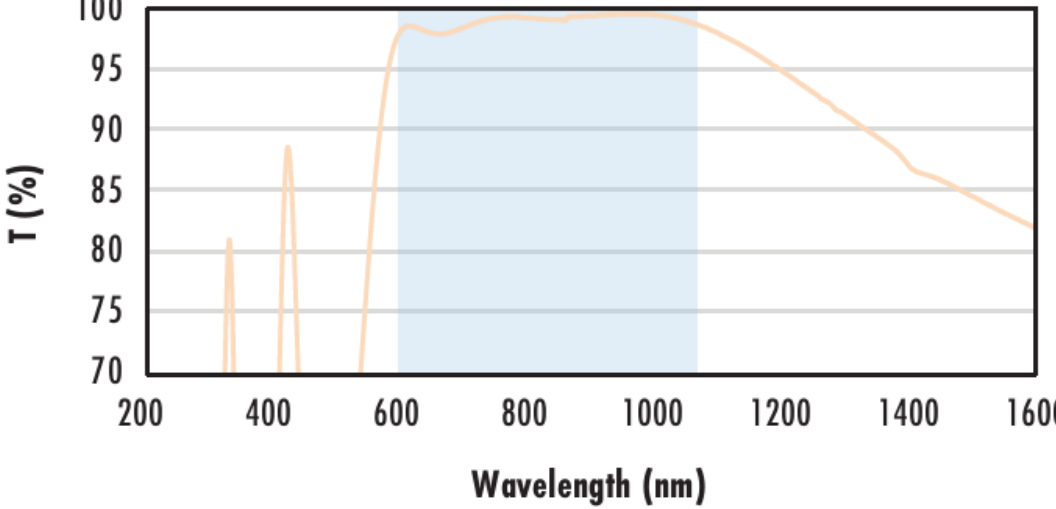
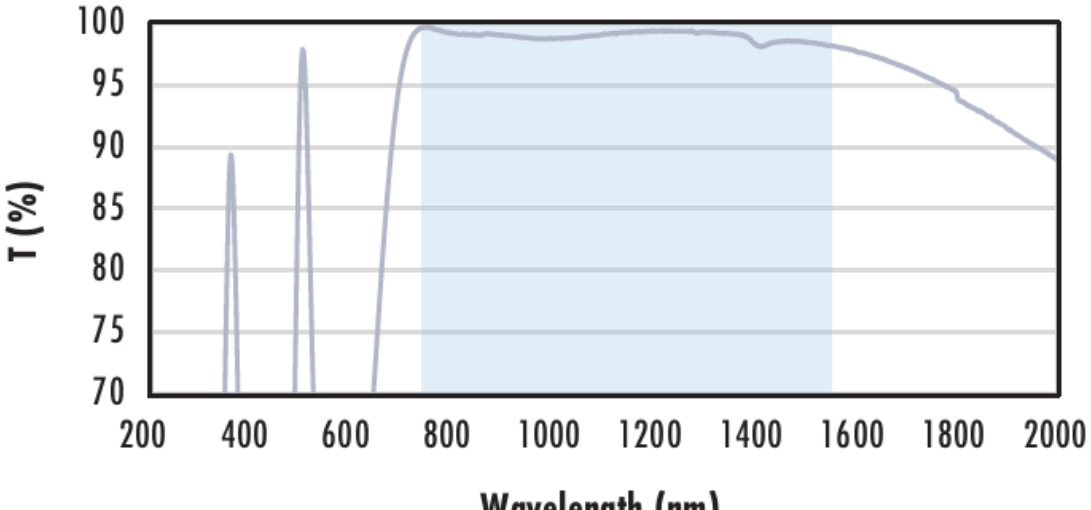


Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

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

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

|                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                            | <a href="#">Click Here to Download Data</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p data-bbox="596 290 974 379"><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1339 427 1843 477">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1339 489 1850 540">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 552 1711 578"><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p data-bbox="1339 590 1839 641">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 652 1711 679"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                        |
| <p data-bbox="569 887 1037 976"><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 1020 1843 1071">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1339 1083 1850 1133">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1145 1688 1172"><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math></p> <p data-bbox="1478 1175 1688 1202"><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math></p> <p data-bbox="1478 1205 1711 1231"><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p data-bbox="1339 1243 1839 1294">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1302 1711 1329"><a href="#">Click Here to Download Data</a></p>           |
| <p data-bbox="617 1525 1008 1614"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 1688 1843 1739">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1339 1751 1850 1801">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1813 1711 1840"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p data-bbox="1339 1852 1839 1902">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1911 1711 1938"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                           |
| <p data-bbox="606 2163 1016 2252"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1339 2297 1843 2347">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1339 2359 1850 2410">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 2421 1688 2448"><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math></p> <p data-bbox="1478 2451 1711 2478"><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math></p> <p data-bbox="1478 2481 1711 2507"><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p data-bbox="1339 2519 1839 2570">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 2579 1711 2605"><a href="#">Click Here to Download Data</a></p> |

Coating Curves

Compatible Mounts

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