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TECHSPEC<sup>®</sup> 30mm Dia. x 60mm FL, MgF<sub>2</sub> Coated, Double-Convex Lens



Stock **#63-589** **5 In Stock**

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-

1

+

C\$81<sup>.20</sup>

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| Qty 1-9        | C\$81.20 each                 |
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Product Downloads

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):                      |
| 1.26                                  | Edge Thickness ET (mm):                               |
| 29.00                                 | Clear Aperture CA (mm):                               |
| Optical Properties                    |                                                       |
| 58.33                                 | Back Focal Length BFL (mm):                           |
| 60.00                                 | 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:                         |
| 61.15                                 | Radius R <sub>1</sub> =R <sub>2</sub> (mm):           |
| 2.00                                  | f/#:                                                  |
| 587.6                                 | Focal Length Specification Wavelength (nm):           |
| ±1                                    | Focal Length Tolerance (%):                           |
| 0.25                                  | 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

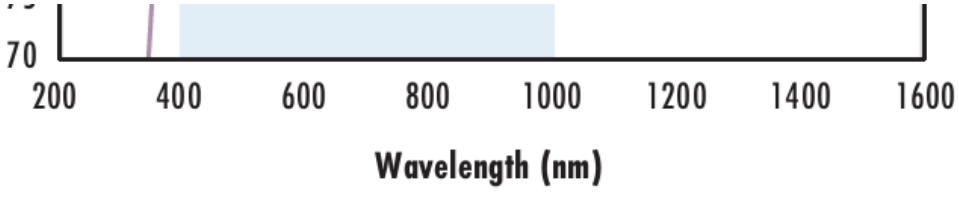
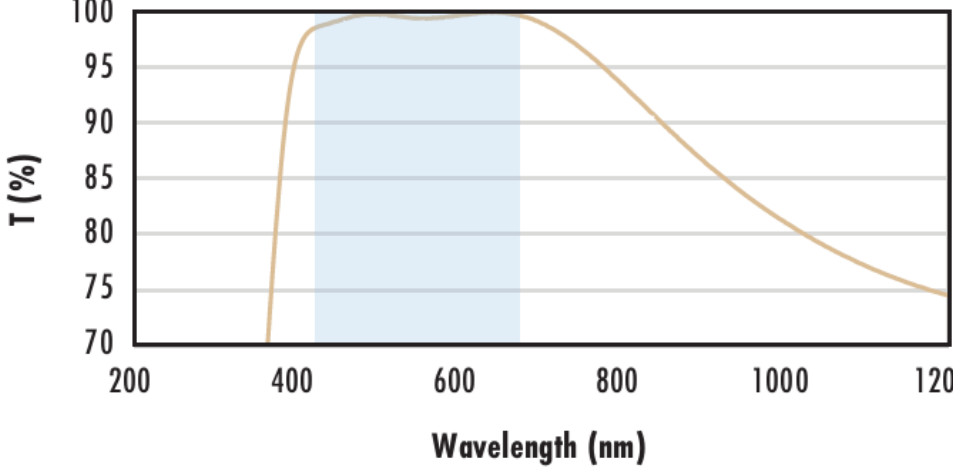
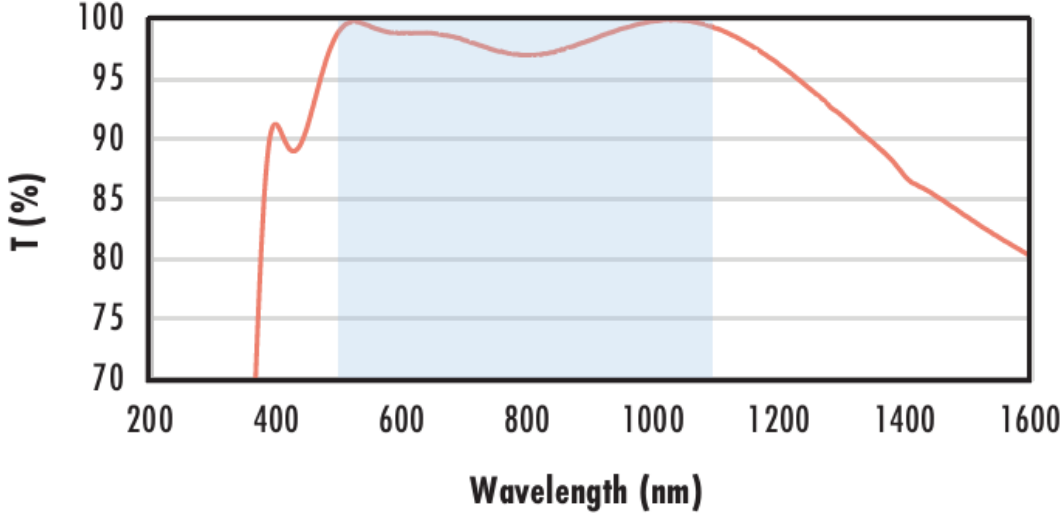
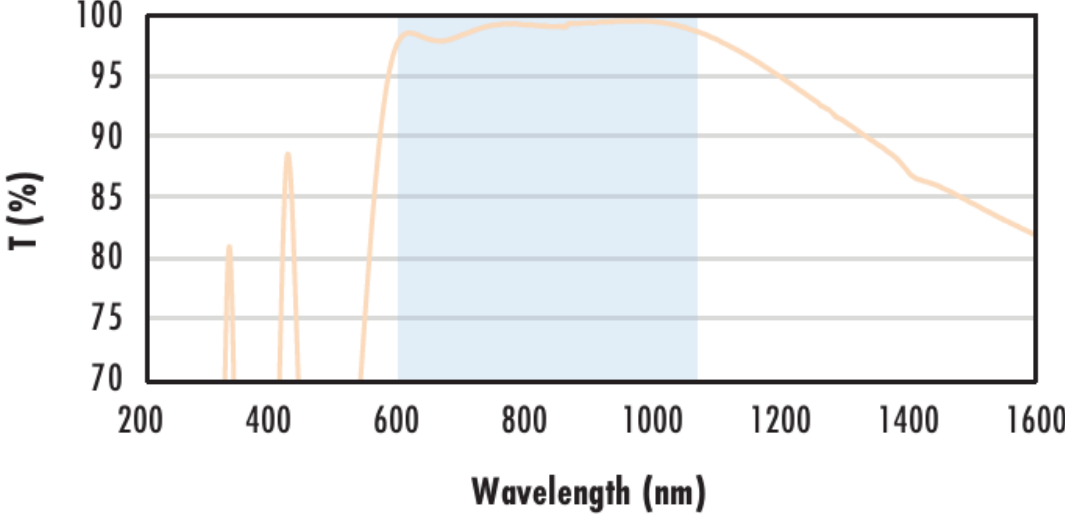
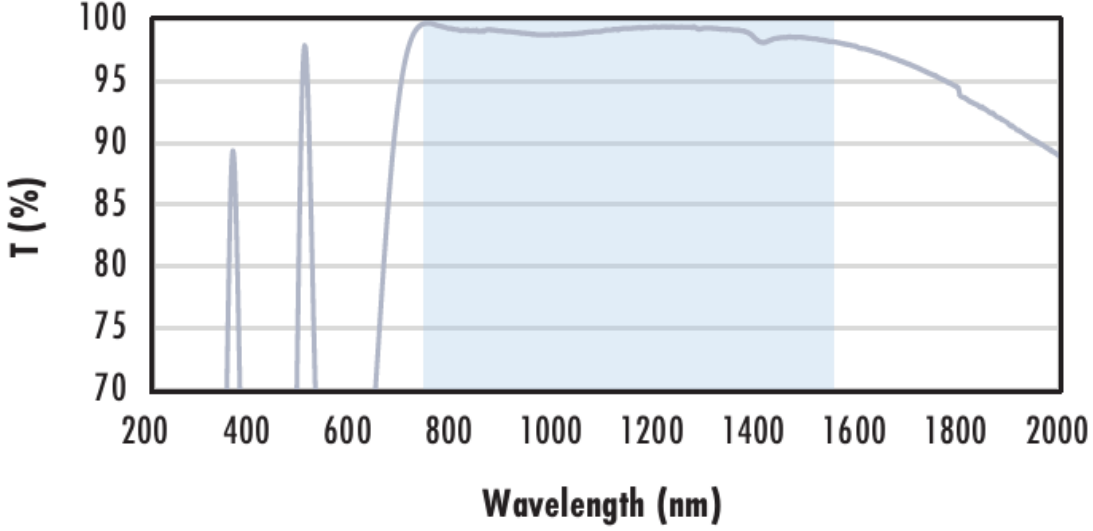


Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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="596 290 974 388"><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 1843 540">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 552 1705 581"><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p data-bbox="1339 593 1843 644">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 655 1705 682"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                        |
| <p data-bbox="569 887 1037 985"><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 1843 1133">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1145 1705 1175"><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math></p> <p data-bbox="1478 1175 1705 1205"><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math></p> <p data-bbox="1478 1205 1705 1234"><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p data-bbox="1339 1246 1843 1297">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1308 1705 1335"><a href="#">Click Here to Download Data</a></p>           |
| <p data-bbox="617 1525 1010 1623"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 1682 1843 1733">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1339 1745 1843 1795">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1807 1705 1837"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p data-bbox="1339 1849 1843 1899">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1911 1705 1938"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                           |
| <p data-bbox="606 2163 1020 2261"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1339 2288 1843 2338">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1339 2350 1843 2401">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 2412 1705 2442"><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math></p> <p data-bbox="1478 2442 1705 2472"><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math></p> <p data-bbox="1478 2472 1705 2502"><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p data-bbox="1339 2525 1843 2576">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 2588 1705 2614"><a href="#">Click Here to Download Data</a></p> |

Coating Curves

Compatible Mounts

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