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TECHSPEC<sup>®</sup> 25.0mm Diameter x -50 FL, MgF<sub>2</sub> Coated, Plano-Concave Lens



Stock **#45-029** 20+ In Stock

☐ [Other Coating Options](#)

-

1

+

A\$70<sup>.80</sup>

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| Volume Pricing |                               |
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| Qty 1-9        | A\$70.80 each                 |
| Qty 10-25      | A\$63.60 each                 |
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Product Downloads

General

Type:

Plano-Concave Lens

Physical & Mechanical Properties

Diameter (mm):

25.00 +0.0/-0.025

|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| Protective as needed                 | Bevel:                                                |
| 3.50                                 | Center Thickness CT (mm):                             |
| ±0.10                                | Center Thickness Tolerance (mm):                      |
| <1                                   | Centering (arcmin):                                   |
| 24.00                                | Clear Aperture CA (mm):                               |
| 6.33                                 | Edge Thickness ET (mm):                               |
| Optical Properties                   |                                                       |
| -50.00                               | Effective Focal Length EFL (mm):                      |
| N-BK7                                | Substrate: <input type="checkbox"/>                   |
| 2.00                                 | f/#:                                                  |
| 0.25                                 | Numerical Aperture NA:                                |
| MgF <sub>2</sub> (400-700nm)         | Coating:                                              |
| 400 - 700                            | Wavelength Range (nm):                                |
| -52.31                               | Back Focal Length BFL (mm):                           |
| R <sub>avg</sub> ≤1.75% @400 - 700nm | Coating Specification:                                |
| 587.6                                | Focal Length Specification Wavelength (nm):           |
| ±1                                   | Focal Length Tolerance (%):                           |
| -25.84                               | Radius R <sub>1</sub> (mm):                           |
| 40-20                                | Surface Quality:                                      |
| 10 J/cm <sup>2</sup> @ 532nm, 10ns   | Damage Threshold, Reference: <input type="checkbox"/> |
| 1.5λ                                 | Power (P-V) @ 632.8nm:                                |
| λ/4                                  | Irregularity (P-V) @ 632.8nm:                         |
| Regulatory Compliance                |                                                       |
| Compliant                            | RoHS 2015:                                            |
| Compliant                            | Reach 219:                                            |
| View                                 | Certificate of Conformance:                           |

## 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

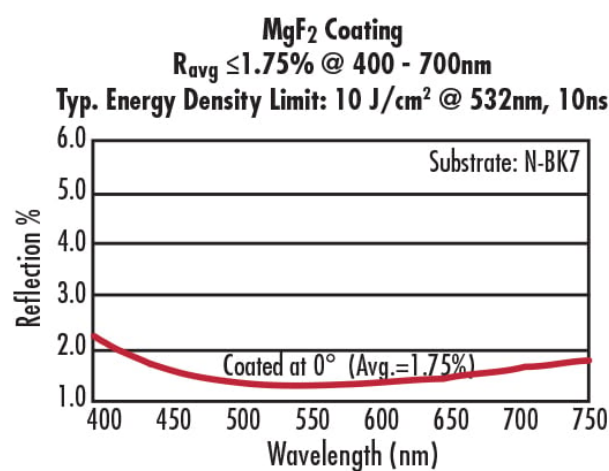
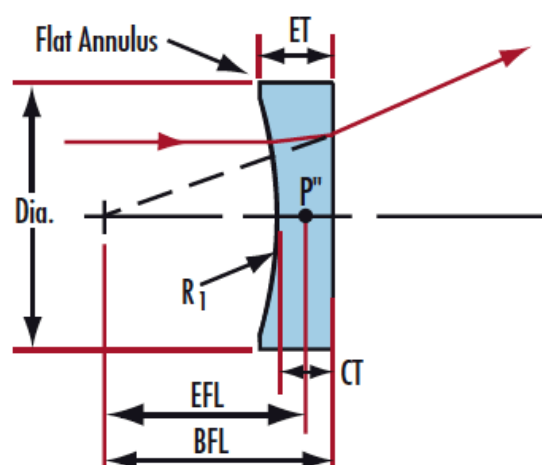
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

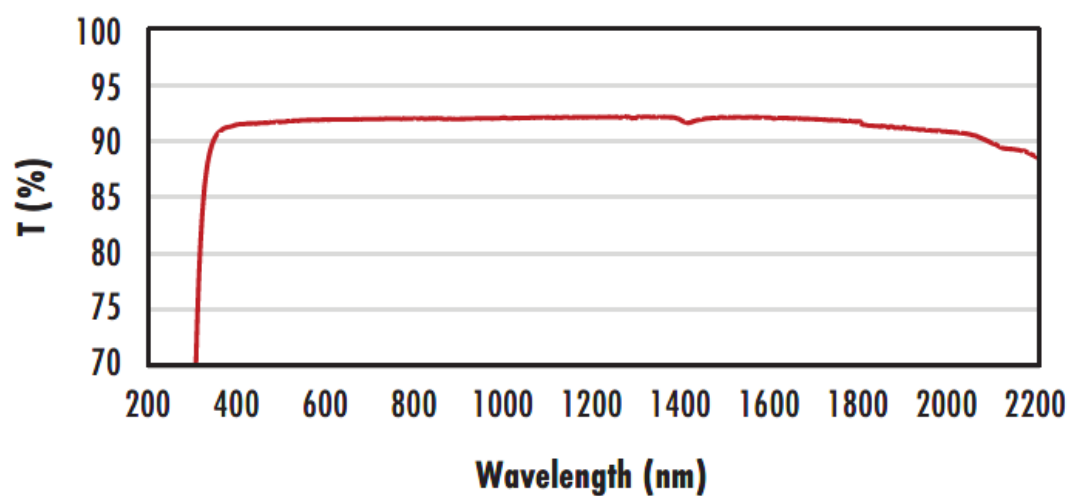
TECHSPEC® MgF<sub>2</sub> Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC MgF<sub>2</sub> Coated Plano-Concave (PCV) Lenses are ideal for broadband applications. These lenses are also available [Uncoated](#), [VIS-EXT](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

Technical Information



N-BK7

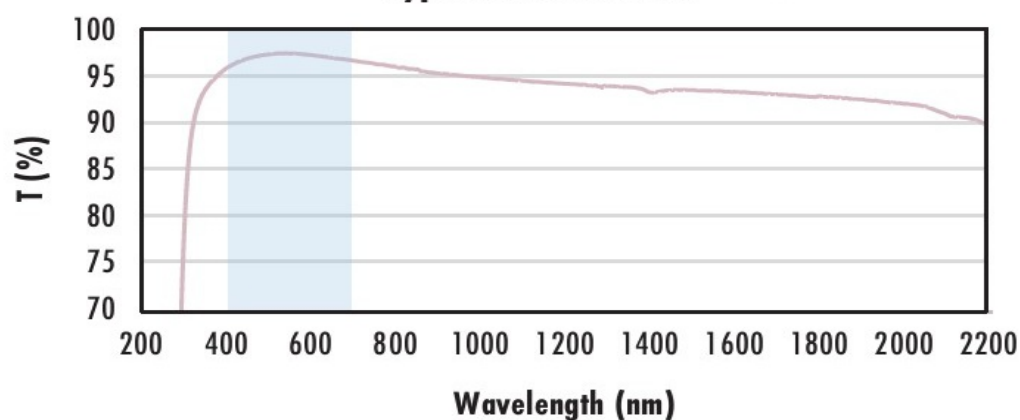
Uncoated N-BK7 Typical Transmission



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<sub>avg</sub> ≤ 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



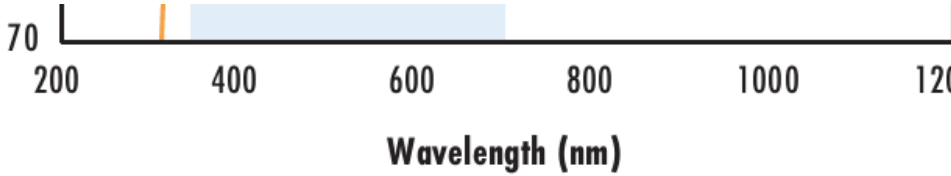
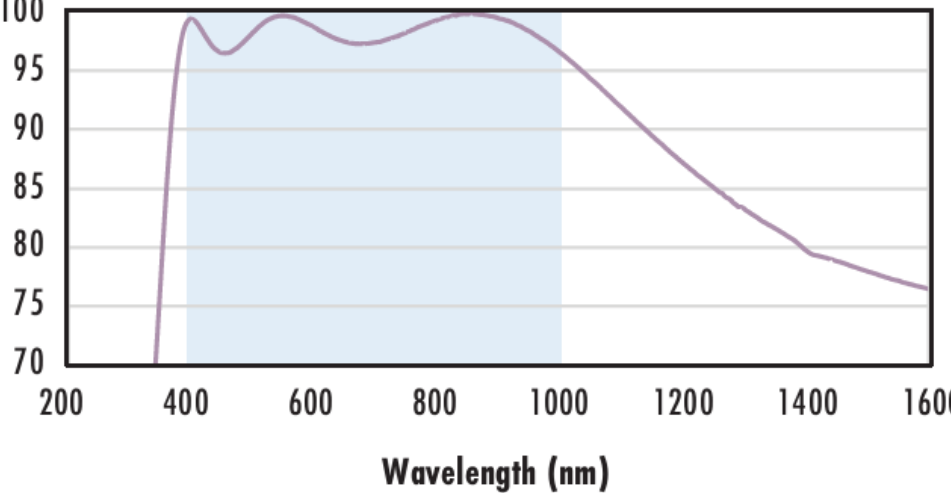
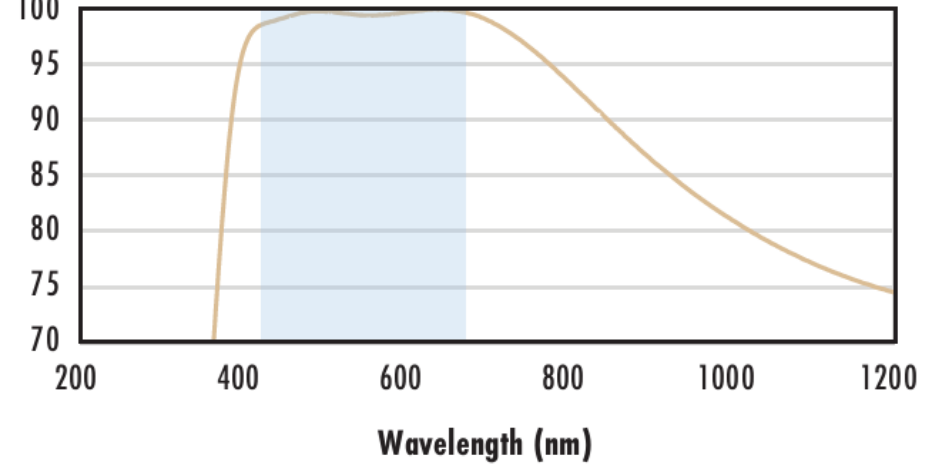
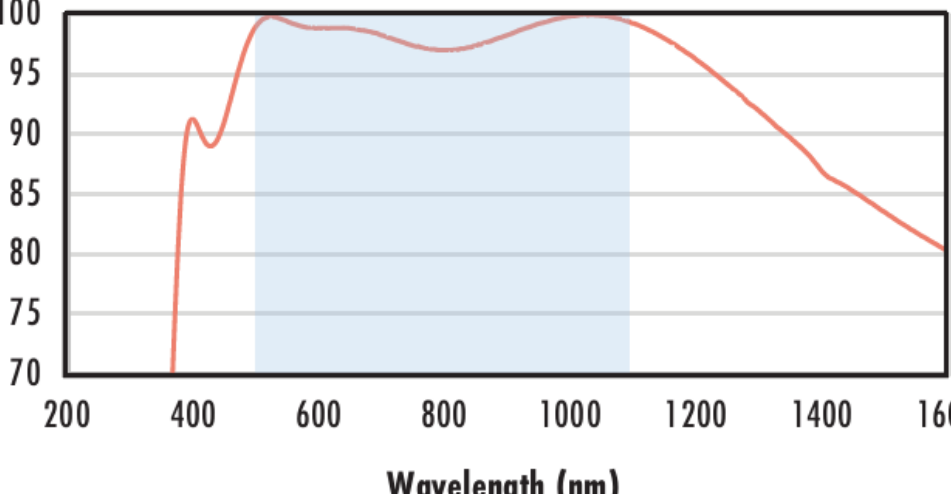
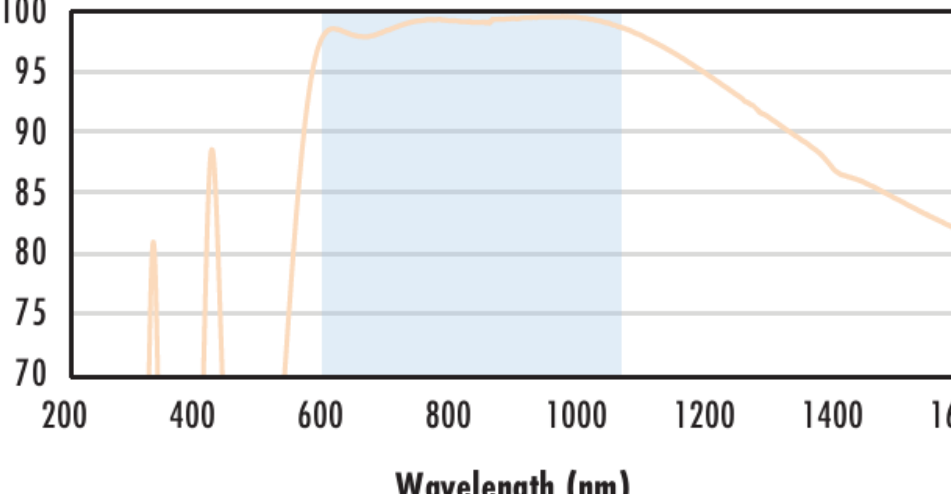
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

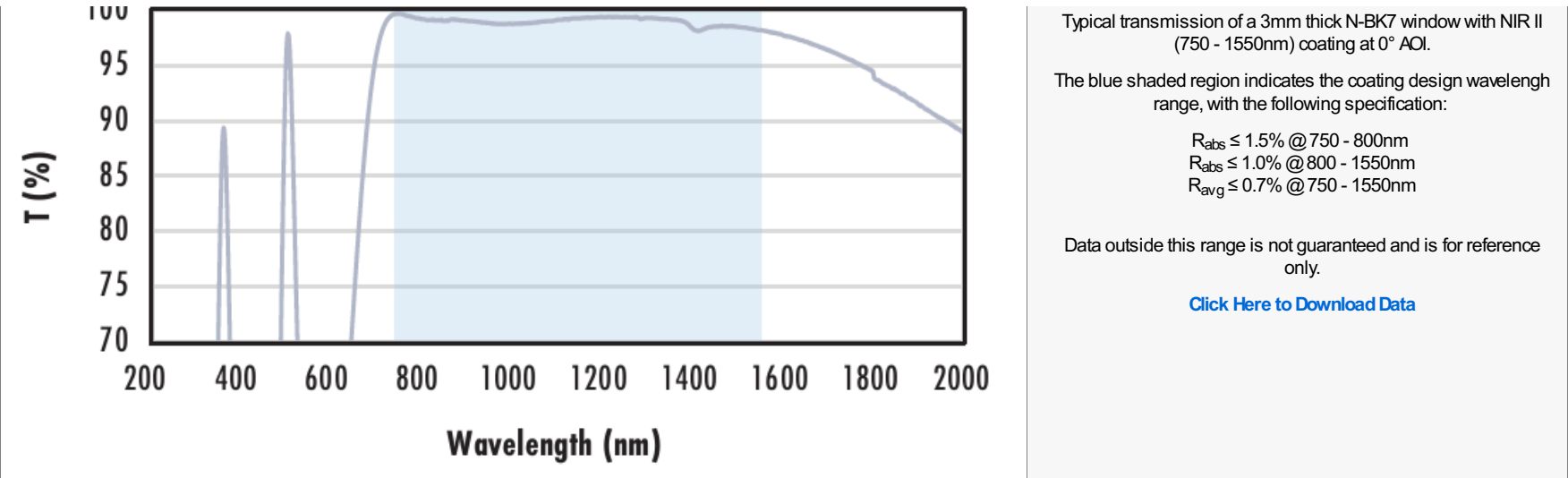
The blue shaded region indicates the coating design wavelength range, with the following specification:

R<sub>avg</sub> ≤ 0.5% @ 350 - 700nm

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

[Click Here to Download Data](#)

|                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p data-bbox="583 284 1003 379"><b>N-BK7 with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1331 403 1850 454">Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1331 468 1850 519">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 528 1713 605"><p><math>R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}</math></p><p><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math></p><p><math>R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}</math></p></div> <p data-bbox="1341 638 1839 688">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 700 1709 724"><a href="#">Click Here to Download Data</a></p>      |
| <p data-bbox="594 908 976 1003"><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>      | <p data-bbox="1337 1041 1845 1092">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1331 1107 1850 1157">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1166 1705 1190"><p><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></p></div> <p data-bbox="1341 1205 1839 1255">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 1267 1709 1291"><a href="#">Click Here to Download Data</a></p>                                                                                                                                    |
| <p data-bbox="567 1501 1037 1596"><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1341 1632 1839 1682">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1331 1697 1850 1748">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 1757 1713 1834"><p><math>R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}</math></p><p><math>R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}</math></p><p><math>R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}</math></p></div> <p data-bbox="1341 1843 1839 1893">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 1905 1709 1929"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="615 2131 1008 2226"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>     | <p data-bbox="1341 2294 1839 2344">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1331 2359 1850 2410">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1472 2418 1709 2442"><p><math>R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}</math></p></div> <p data-bbox="1341 2457 1839 2507">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 2519 1709 2543"><a href="#">Click Here to Download Data</a></p>                                                                                                                                 |
| <p data-bbox="604 2778 1016 2873"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



Coating Curves

Compatible Mounts