

TECHSPEC<sup>®</sup> 25mm Dia. x 175mm FL Uncoated, Double-Convex Lens



Stock **#32-877** 20+ In Stock

☐ [Other Coating Options](#)

-

1

+

£28<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | £28.60 each                   |
| Qty 10-24      | £25.80 each                   |
| Qty 25-99      | £22.80 each                   |
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Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Double-Convex Lens

Type:

Physical & Mechanical Properties

|                      |                                  |
|----------------------|----------------------------------|
| 25.00 +0.0/-0.025    | Diameter (mm):                   |
| <1                   | Centering (arcmin):              |
| Protective as needed | Bevel:                           |
| 3.20                 | Center Thickness CT (mm):        |
| ±0.10                | Center Thickness Tolerance (mm): |
| 2.33                 | Edge Thickness ET (mm):          |
| 24.00                | Clear Aperture CA (mm):          |

Optical Properties

|            |                                             |
|------------|---------------------------------------------|
| 173.94     | Back Focal Length BFL (mm):                 |
| 175.00     | Effective Focal Length EFL (mm):            |
| Uncoated   | Coating:                                    |
| N-BK7      | Substrate: □                                |
| 40-20      | Surface Quality:                            |
| 1.5λ       | Power (P-V) @ 632.8nm:                      |
| λ/4        | Irregularity (P-V) @ 632.8nm:               |
| 180.40     | Radius R <sub>1</sub> =R <sub>2</sub> (mm): |
| 7.00       | f/#:                                        |
| 587.6      | Focal Length Specification Wavelength (nm): |
| ±1         | Focal Length Tolerance (%):                 |
| 0.07       | Numerical Aperture NA:                      |
| 350 - 2200 | Wavelength Range (nm):                      |

Regulatory Compliance

|           |                             |
|-----------|-----------------------------|
| Compliant | RoHS 2015:                  |
| View      | Certificate of Conformance: |
| Compliant | Reach 235:                  |

## Product Details

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Anti-Reflection Coating Options: [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)

TECHSPEC® Uncoated 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 canceled due to the symmetric lens design. TECHSPEC® Uncoated Double-Convex Lenses resist the effects from various aberrations in a lens design that are ultimately seen in performance and affect modulation transfer function (MTF), spot size, telecentricity, depth of field (DOF), and others. These 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 - 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.

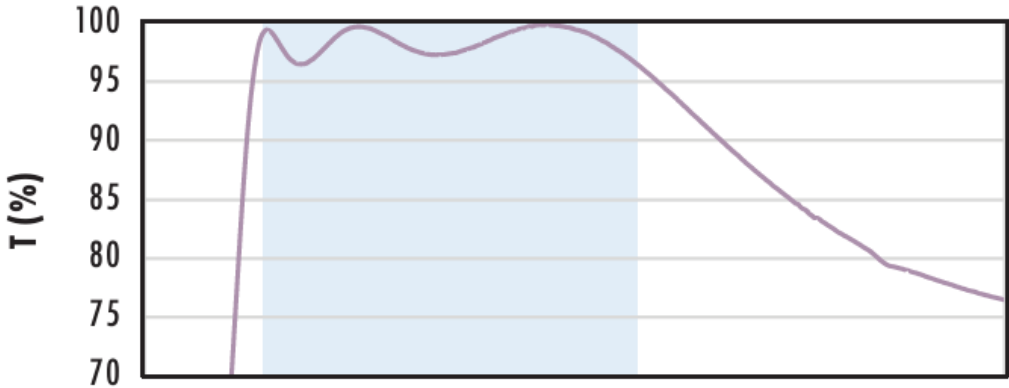
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

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

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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](#).

## Compatible Mounts

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