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TECHSPEC® 20mm Dia. x 60mm FL, VIS-EXT, Inked, Double-Convex Lens



Stock **#89-173-INK** [CONTACT US](#)

[Other Coating Options](#)

1 €65⁰⁰

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| Volume Pricing | |
|----------------|-------------------------------|
| Qty 1-9 | €65,00 each |
| Qty 10-24 | €58,50 each |
| Qty 25-99 | €52,00 each |
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! Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Double-Convex Lens **Type:**

Physical & Mechanical Properties

| | |
|----------------------|---|
| 20.00 ±0.025 | Diameter (mm): |
| <1 | Centering (arcmin): |
| Protective as needed | Bevel: |
| 4.00 | Center Thickness CT (mm): |
| ±0.10 | Center Thickness Tolerance (mm): |
| 2.36 | Edge Thickness ET (mm): |
| 19.00 | Clear Aperture CA (mm): |

Optical Properties

| | |
|--------------------------------------|--|
| 58.67 | Back Focal Length BFL (mm): |
| 60.00 | Effective Focal Length EFL (mm): |
| VIS-EXT (350-700nm) | Coating: |
| R _{avg} <0.5% @ 350 - 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: |
| 61.33 | Radius R₁=R₂ (mm): |
| 3.00 | f#: |
| 587.6 | Focal Length Specification Wavelength (nm): |
| ±1 | Focal Length Tolerance (%): |
| 0.17 | Numerical Aperture NA: |
| 350 - 700 | Wavelength Range (nm): |

Regulatory Compliance

| | |
|----------------------|------------------------------------|
| View | Certificate of Conformance: |
|----------------------|------------------------------------|

Product Details

- AR Coated to Provide <0.5% Reflectance per Surface for 350 - 700nm
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Other Coating Options Available: [Uncoated](#), [MgF₂](#), [VIS 0°](#), [NIR I](#), [NIR II](#), [VIS-NIR](#), and [YAG-BBAR](#)

TECHSPEC® VIS-EXT 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 VIS-EXT Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

Technical Information





across the UV - NIR spectra.
[Click Here to Download Data](#)

**N-BK7 with MgF₂ Coating
 Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with MgF₂ (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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**N-BK7 with VIS 0° Coating
 Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.
 The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$
 Data outside this range is not guaranteed and is for reference only.

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**N-BK7 with YAG-BBAR Coating
 Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$R_{abs} \leq 0.25\%$ @ 532nm
 $R_{abs} \leq 0.25\%$ @ 1064nm
 $R_{avg} \leq 1.0\%$ @ 500 - 1100nm

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

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**N-BK7 with NIR I Coating
Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

$R_{avg} \leq 0.5\%$ @ 600 - 1050nm

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

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**N-BK7 with NIR II Coating
Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

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

$R_{abs} \leq 1.5\%$ @ 750 - 800nm
 $R_{abs} \leq 1.0\%$ @ 800 - 1550nm
 $R_{avg} \leq 0.7\%$ @ 750 - 1550nm

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

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Compatible Mounts