

TECHSPEC<sup>®</sup> 12.0mm Dia. x 42.0mm FL, NIR I, Inked, Plano-Convex Lens



Stock **#48-738-INK** [CONTACT US](#)

☐ [Other Coating Options](#)

-

1

+

£46<sup>.80</sup>

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| Volume Pricing |                               |
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| Qty 1-9        | £46.80 each                   |
| Qty 10-24      | £42.00 each                   |
| Qty 25-49      | £37.60 each                   |
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!

 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Plano-Convex Lens

Type:

Physical & Mechanical Properties

|                      |                           |
|----------------------|---------------------------|
| 12.00 ±0.025         | Diameter (mm):            |
| <1                   | Centering (arcmin):       |
| 2.70 ±0.05           | Center Thickness CT (mm): |
| 1.85                 | Edge Thickness ET (mm):   |
| 11                   | Clear Aperture CA (mm):   |
| Protective as needed | Bevel:                    |

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| Optical Properties                    |                                                       |
| 42.00 @ 587.6nm                       | Effective Focal Length EFL (mm):                      |
| 40.22                                 | Back Focal Length BFL (mm):                           |
| NIR I (600-1050nm)                    | Coating:                                              |
| R <sub>avg</sub> ≤0.5% @ 600 - 1050nm | 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:                         |
| ±1                                    | Focal Length Tolerance (%):                           |
| 21.71                                 | Radius R <sub>1</sub> (mm):                           |
| 3.5                                   | f/#:                                                  |
| 0.14                                  | Numerical Aperture NA:                                |
| 600 - 1050                            | Wavelength Range (nm):                                |
| 7 J/cm <sup>2</sup> @ 1064nm, 10ns    | Damage Threshold, By Design: <input type="checkbox"/> |

|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| View                  | Certificate of Conformance: |

Product Details

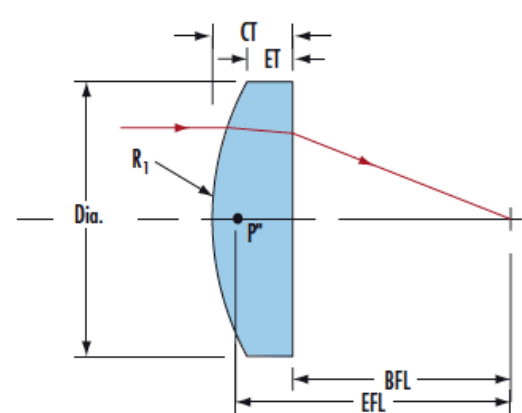
• AR Coated to Provide <0.5% Reflectance per Surface for 600 - 1050nm

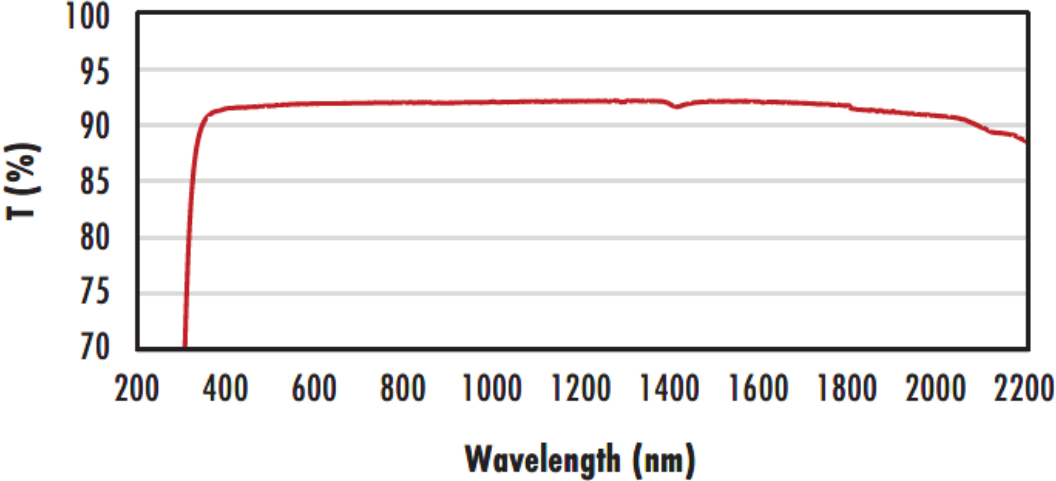
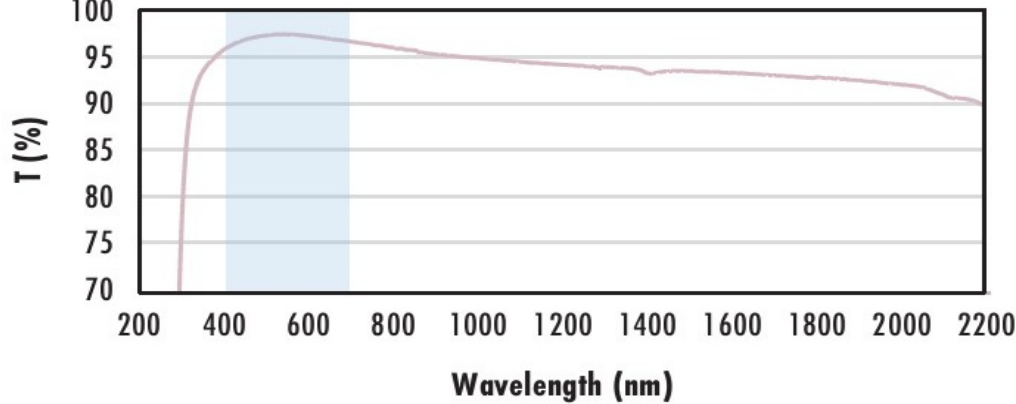
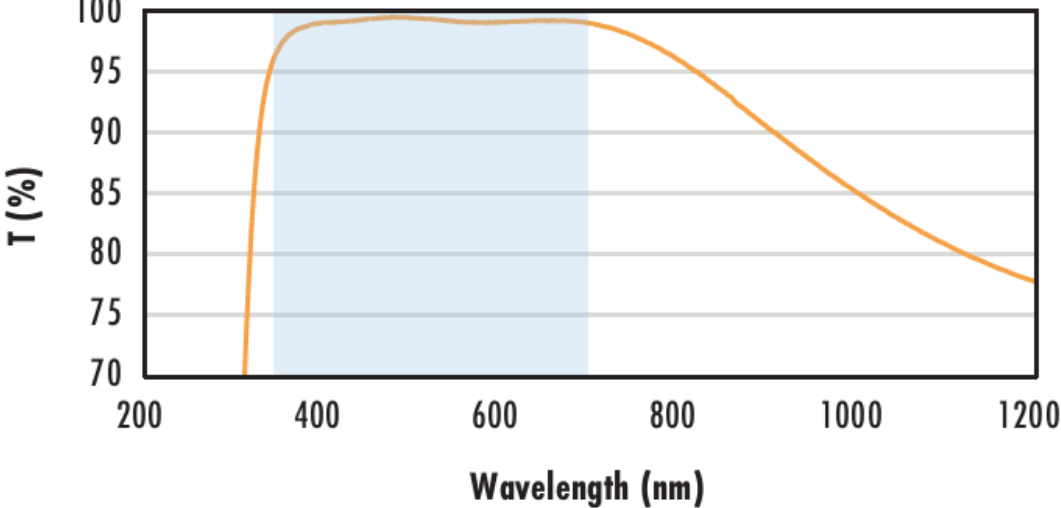
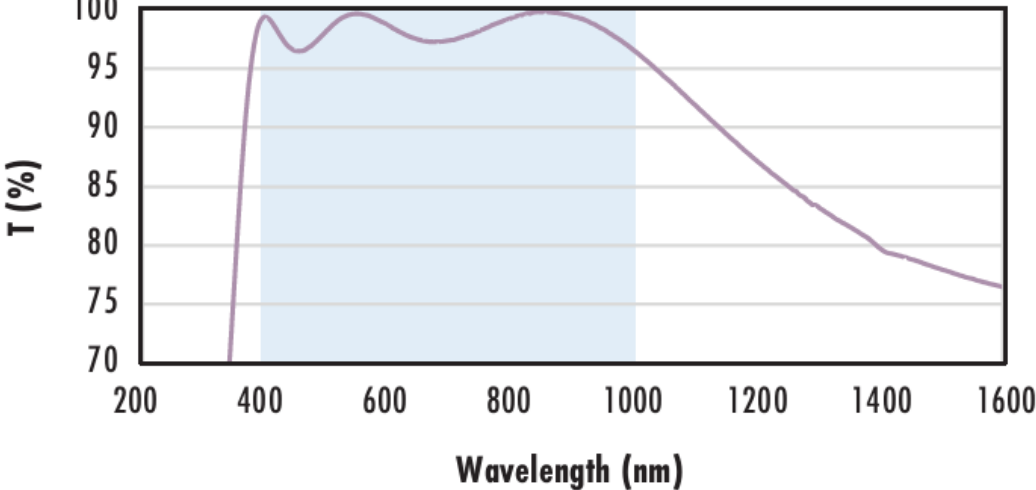
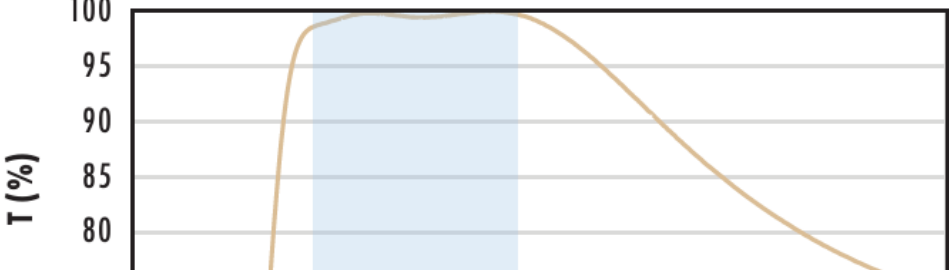
• Designed for 0° Angle of Incidence

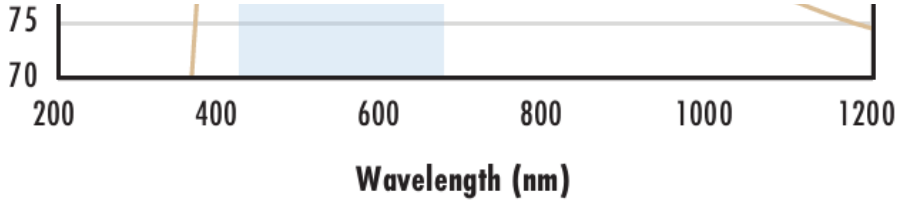
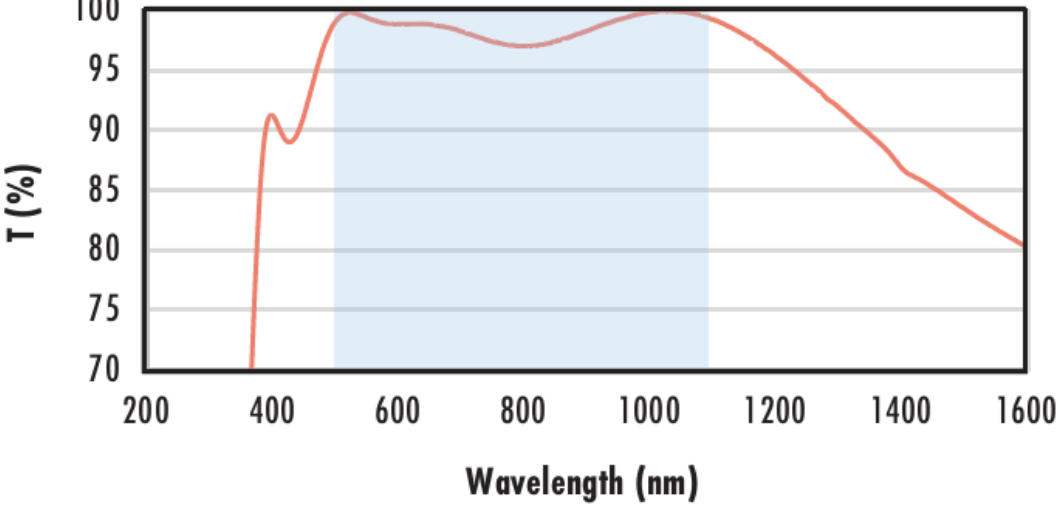
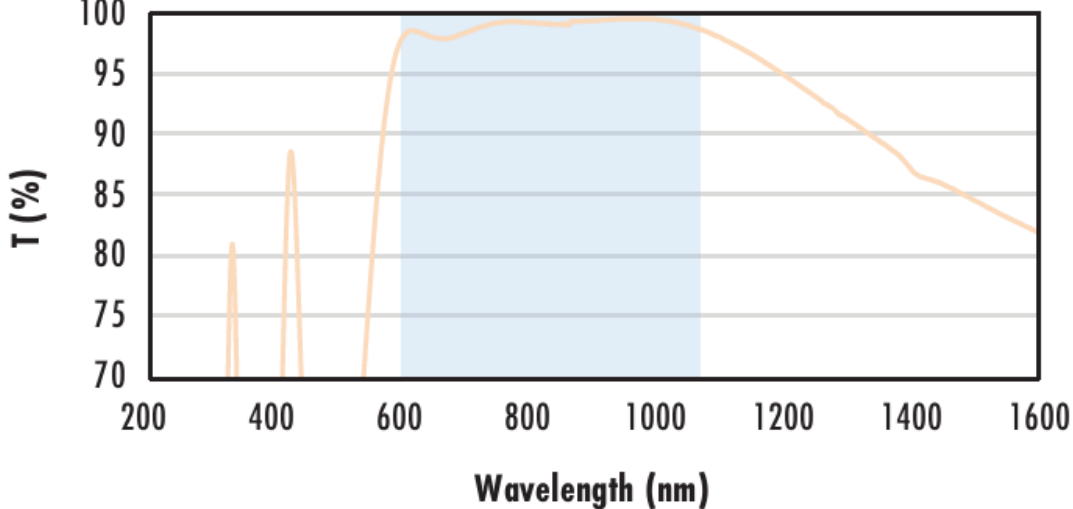
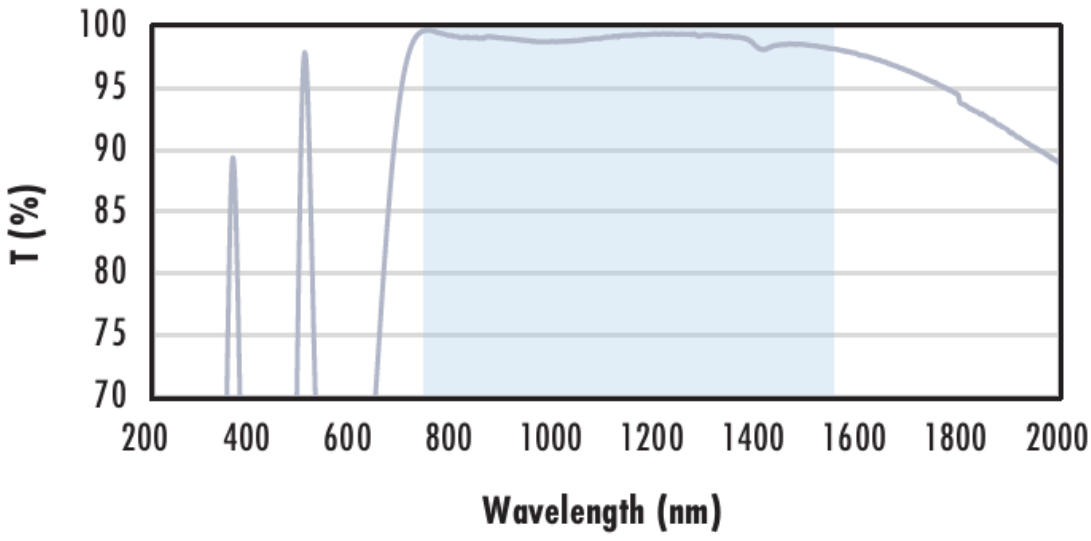
• Various PCX Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)

TECHSPEC® NIR I Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® NIR I Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered [uncoated](#) or with broadband anti-reflective (BBAR) coatings, which include [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#).

Technical Information



| N-BK7                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Uncoated N-BK7 Typical Transmission</div></div>                      | <div>Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV- NIR spectra.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <div><div>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</div></div> | <div>Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}</math></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                                              |
| <div><div>N-BK7 with VIS-EXT Coating Typical Transmission</div></div>        | <div>Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                                                    |
| <div><div>N-BK7 with VIS-NIR Coating Typical Transmission</div></div>        | <div>Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}</math></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div> |
| <div><div>N-BK7 with VIS 0° Coating Typical Transmission</div></div>         | <div>Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <div>Data outside this range is not guaranteed and is for reference only.</div>                                                                                                                                                                                            |

|                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                             | <a href="#">Click Here to Download Data</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 0.25\% @ 532nm</math><br/><math>R_{abs} \leq 0.25\% @ 1064nm</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100nm</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>           |
| <p><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p>Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\% @ 600 - 1050nm</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                       |
| <p><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.5\% @ 750 - 800nm</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550nm</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |

## Custom

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

