

TECHSPEC<sup>®</sup> 20mm Diameter x -40 FL, VIS 0° Coated, Plano-Concave Lens



Stock **#47-909** **6 In Stock**

☐ [Other Coating Options](#)

-

1

+

€49<sup>.75</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | €49,75 each                   |
| Qty 10-25      | €44,75 each                   |
| Qty 26-49      | €39,75 each                   |
| Need More?     | <a href="#">Request Quote</a> |

Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Plano-Concave Lens

Type:

Physical & Mechanical Properties

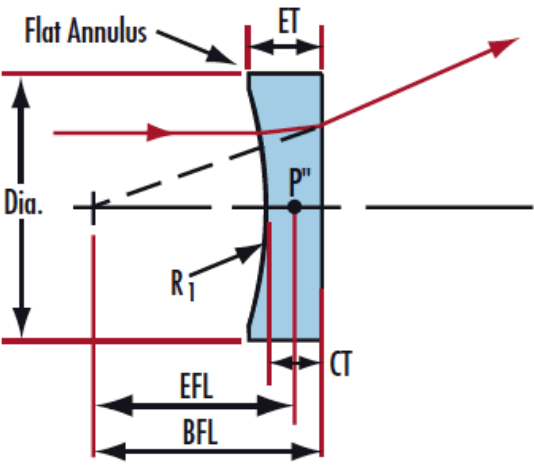
|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| 20.00 +0.0/-0.025                    | Diameter (mm):                                        |
| Protective as needed                 | Bevel:                                                |
| 3.50                                 | Center Thickness CT (mm):                             |
| ±0.10                                | Center Thickness Tolerance (mm):                      |
| <1                                   | Centering (arcmin):                                   |
| 19.00                                | Clear Aperture CA (mm):                               |
| 5.92                                 | Edge Thickness ET (mm):                               |
| Optical Properties                   |                                                       |
| -40.00                               | Effective Focal Length EFL (mm):                      |
| N-BK7                                | Substrate: <input type="checkbox"/>                   |
| 2.00                                 | f/#:                                                  |
| 0.25                                 | Numerical Aperture NA:                                |
| VIS 0° (425-675nm)                   | Coating:                                              |
| 425 - 675                            | Wavelength Range (nm):                                |
| -42.31                               | Back Focal Length BFL (mm):                           |
| R <sub>avg</sub> ≤0.4% @ 425 - 675nm | Coating Specification:                                |
| 587.6                                | Focal Length Specification Wavelength (nm):           |
| ±1                                   | Focal Length Tolerance (%):                           |
| -20.67                               | Radius R <sub>1</sub> (mm):                           |
| 40-20                                | Surface Quality:                                      |
| 5 J/cm² @ 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:                                            |
| View                                 | Certificate of Conformance:                           |
| Compliant                            | Reach 235:                                            |

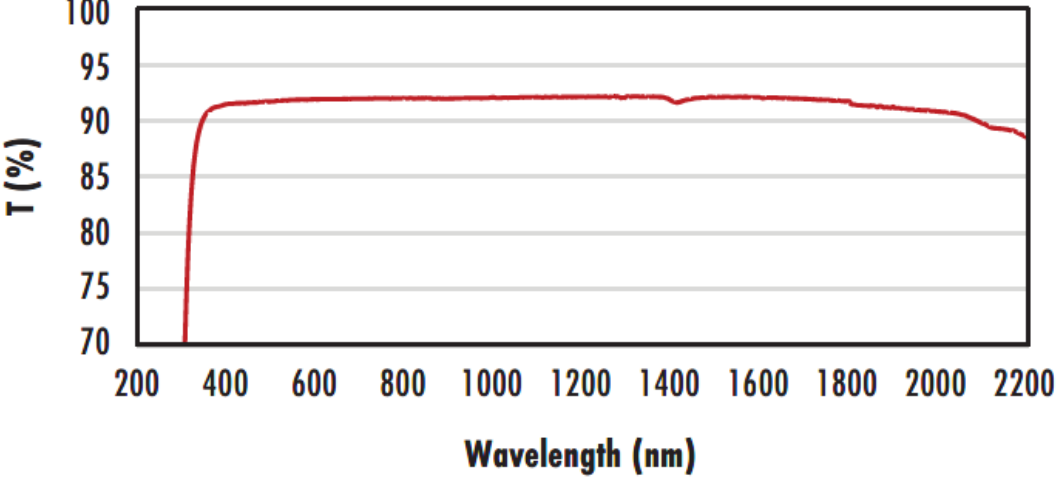
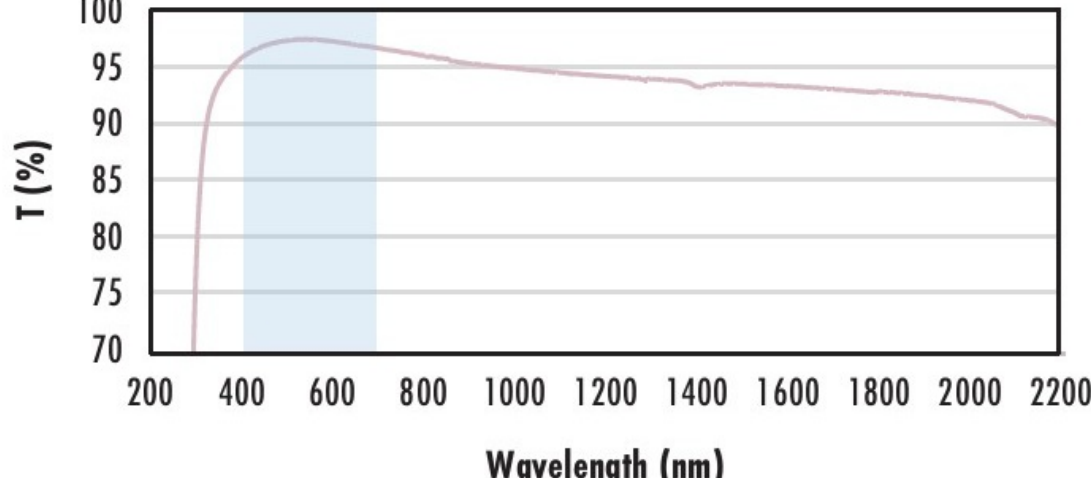
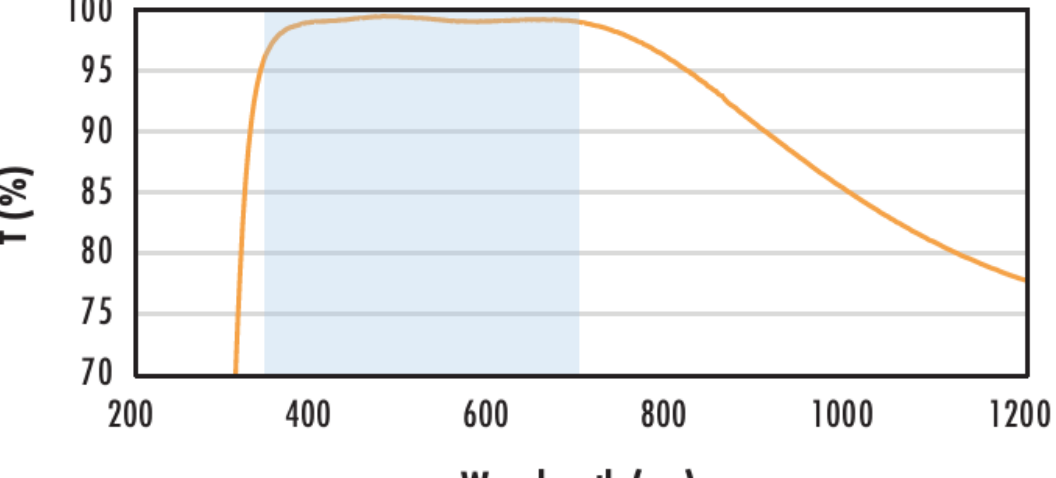
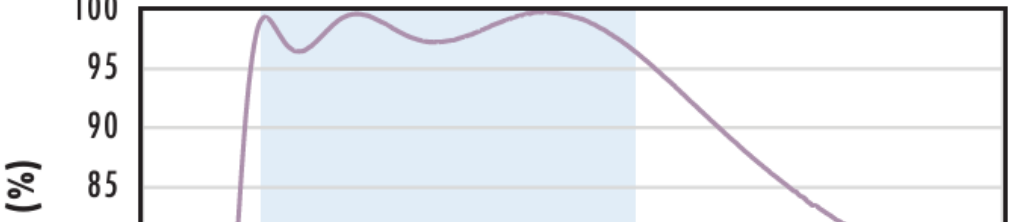
## Product Details

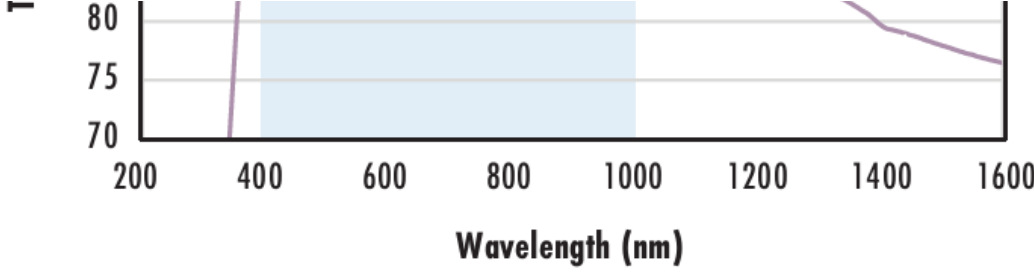
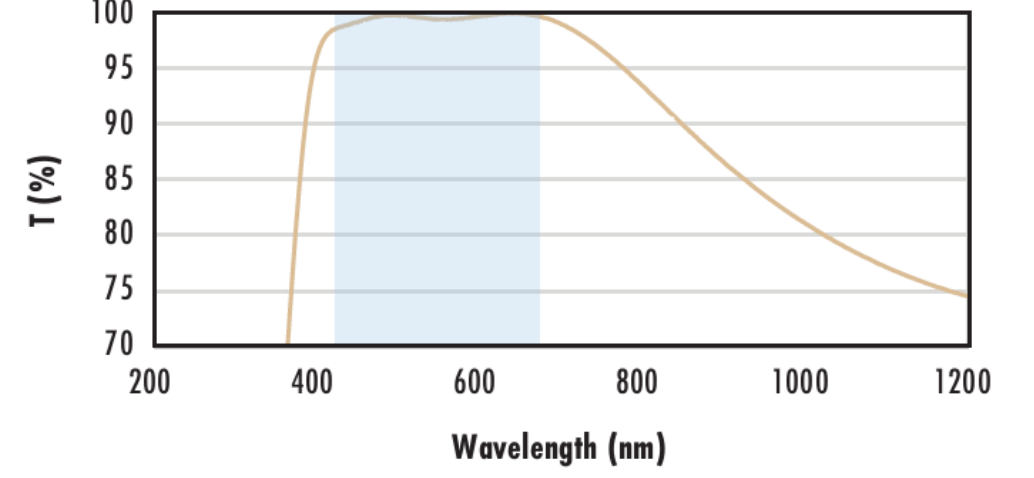
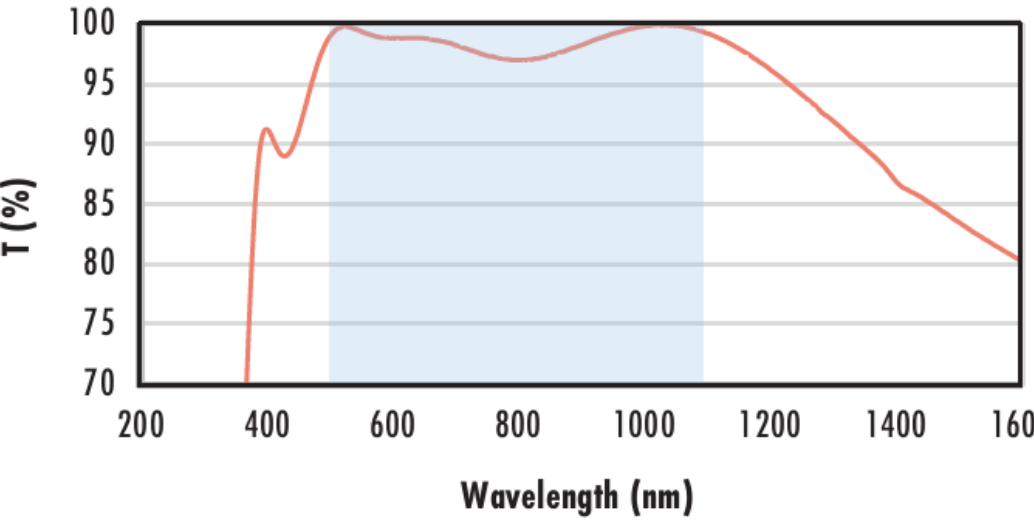
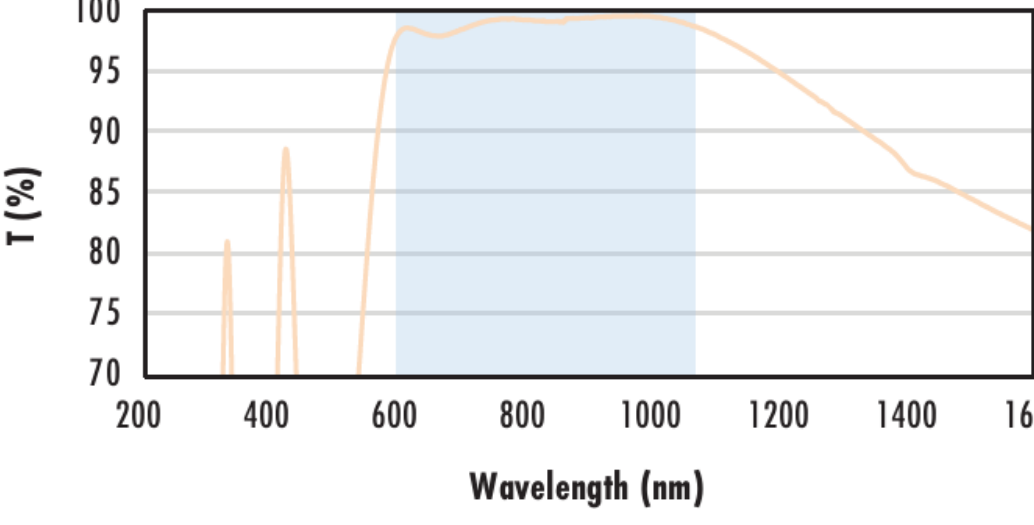
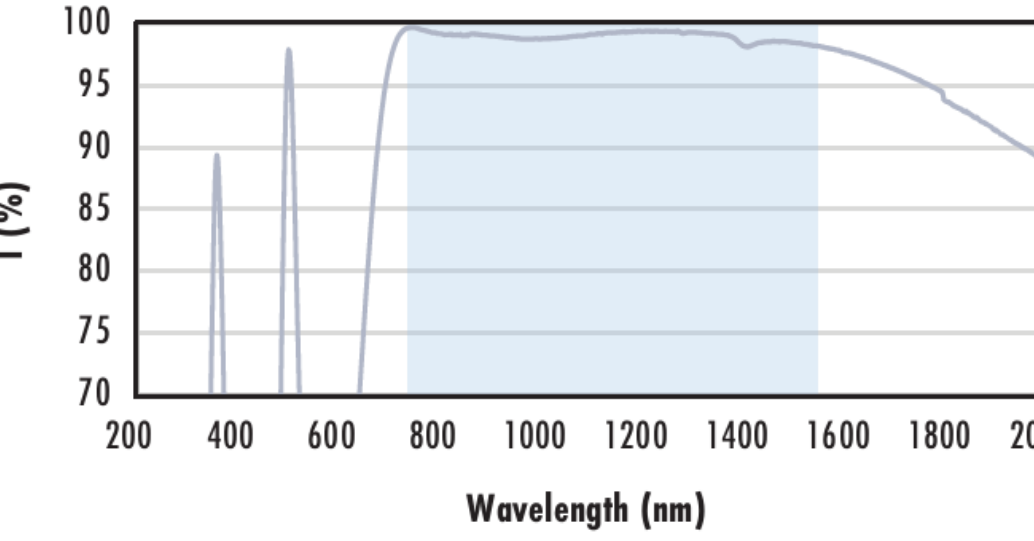
- AR Coated to Provide <0.4% Reflectance per Surface for 425 - 675nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® VIS 0° 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 VIS 0° Coated Plano-Concave (PCV) Lenses are best used in 0° angle of incidence situations and provide optimized transmission in the 425nm – 675nm range. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

## 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 MgF<sub>2</sub> (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>                      |

|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                             | <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 data-bbox="598 371 976 460"><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>        | <p>Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) 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 0.4\% @ 425 - 675\text{nm}</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 data-bbox="567 964 1039 1053"><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\% @ 532\text{nm}</math><br/><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</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 data-bbox="619 1602 1018 1691"><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 - 1050\text{nm}</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 data-bbox="609 2240 1029 2329"><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 - 800\text{nm}</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</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> |

# Coating Curves

## 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

