

TECHSPEC<sup>®</sup> 6mm Diameter x -18 FL, VIS-NIR Coated, Plano-Concave Lens



TECHSPEC VIS-NIR Coated Plano-Concave (PCV) Lenses



Stock **#45-912** [CONTACT US](#)

☐ [Other Coating Options](#)

-

1

+

£38<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | £38.00 each                   |
| Qty 10-25      | £34.00 each                   |
| Qty 26-49      | £30.40 each                   |
| Need More?     | <a href="#">Request Quote</a> |

Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Plano-Concave Lens

Physical & Mechanical Properties

|                                                                                                                    |                                             |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 6.00 +0.0/-0.025                                                                                                   | Diameter (mm):                              |
| Protective as needed                                                                                               | Bevel:                                      |
| 2.00                                                                                                               | Center Thickness CT (mm):                   |
| ±0.05                                                                                                              | Center Thickness Tolerance (mm):            |
| <1                                                                                                                 | Centering (arcmin):                         |
| 5.4                                                                                                                | Clear Aperture CA (mm):                     |
| 2.40                                                                                                               | Edge Thickness ET (mm):                     |
| Optical Properties                                                                                                 |                                             |
| -18.00                                                                                                             | Effective Focal Length EFL (mm):            |
| N-BK7                                                                                                              | Substrate: □                                |
| 3.00                                                                                                               | f/#:                                        |
| 0.17                                                                                                               | Numerical Aperture NA:                      |
| VIS-NIR (400-1000nm)                                                                                               | Coating:                                    |
| 400 - 1000                                                                                                         | Wavelength Range (nm):                      |
| -19.32                                                                                                             | Back Focal Length BFL (mm):                 |
| R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm | Coating Specification:                      |
| 587.6                                                                                                              | Focal Length Specification Wavelength (nm): |
| ±1                                                                                                                 | Focal Length Tolerance (%):                 |
| -9.30                                                                                                              | Radius R <sub>1</sub> (mm):                 |
| 40-20                                                                                                              | Surface Quality:                            |
| 5 J/cm² @ 532nm, 10ns                                                                                              | Damage Threshold, By Design: □              |
| 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:                                  |

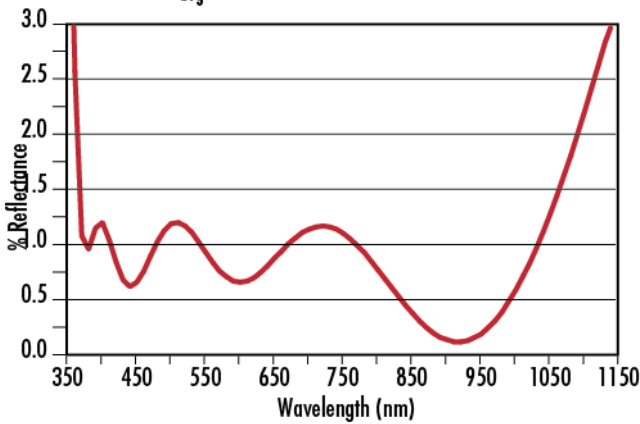
## Product Details

- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
  - <0.25% Reflectance @ 880nm
  - Designed for 0° Angle of Incidence
  - Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)
- TECHSPEC® VIS-NIR 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-NIR Coated Plano-Concave (PCV) Lenses are optimized for transmission (>99%) in the near-infrared. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

## Technical Information

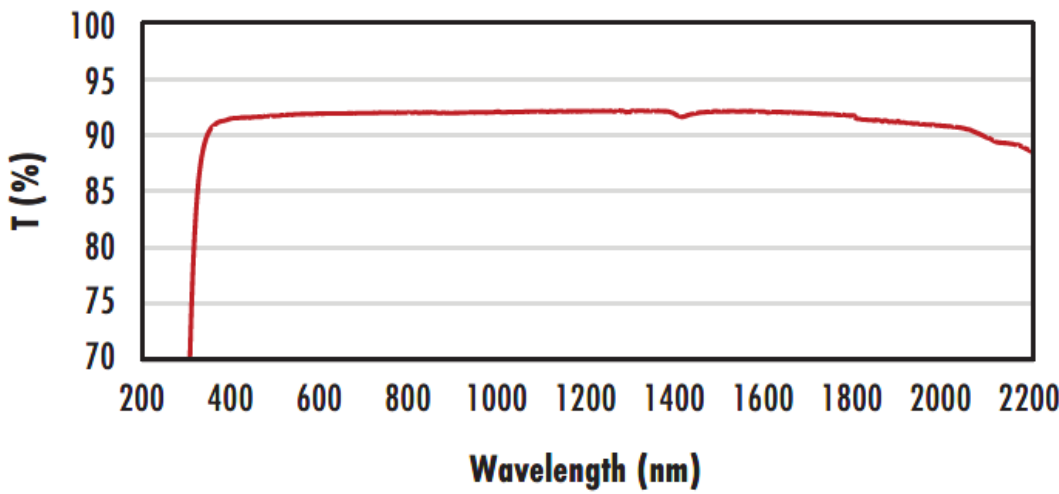


**VIS-NIR Coating**  
 $R_{\text{obs}} \leq 0.25\% @ 880\text{nm}$   
 $R_{\text{avg}} \leq 1.25\% @ 400-1000\text{nm}$



N-BK7

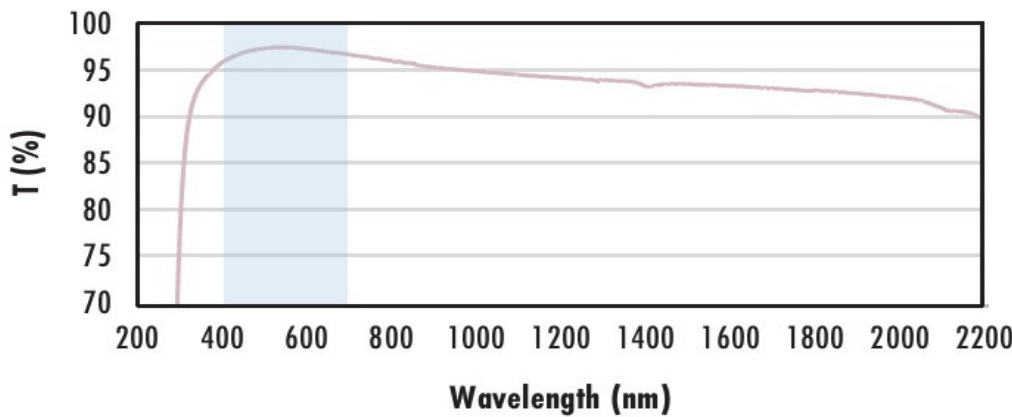
### Uncoated N-BK7 Typical Transmission



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.

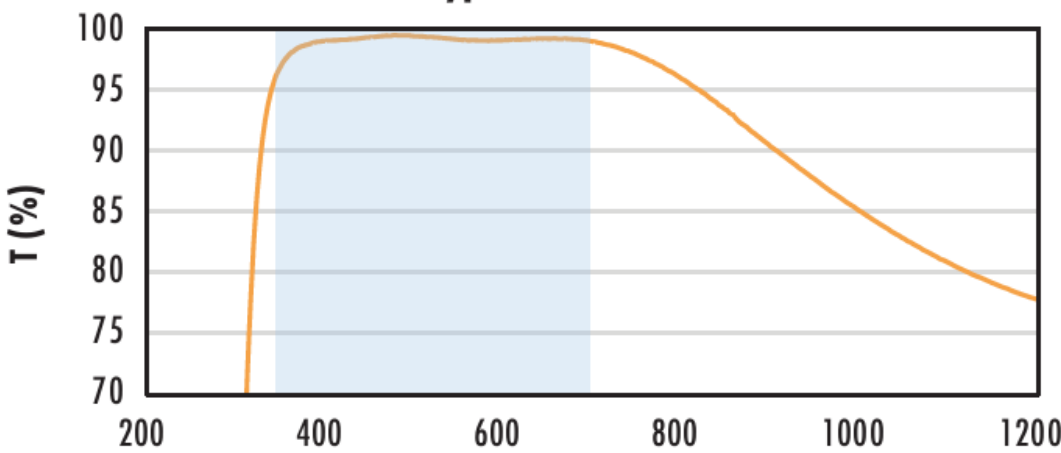
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{\text{avg}} \leq 1.75\% @ 400 - 700\text{nm}$  (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:

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

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

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## 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