

TECHSPEC[®] 12.0mm Dia. x -15 FL, Uncoated, Plano-Concave Lens



TECHSPEC Uncoated Plano-Concave (PCV) Lenses



Stock **#48-679** **20+ In Stock**
[Other Coating Options](#)

-

1

+

₹2,336

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Volume Pricing	
Qty 1-9	₹2,336 each
Qty 10-25	₹2,102 each
Qty 26-49	₹1,868 each
Need More?	Request Quote

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General

Type:
Plano-Concave Lens

Physical & Mechanical Properties

Diameter (mm):

12.00 +0.0/-0.025	
	Bevel:
Protective as needed	
Center Thickness CT (mm):	3.00
Center Thickness Tolerance (mm):	±0.05
Centering (arcmin):	<1
Clear Aperture CA (mm):	11.00
Edge Thickness ET (mm):	4.47

Optical Properties	
Effective Focal Length EFL (mm):	-15.00
Substrate: ☐	N-SF11
f/#:	1.25
Numerical Aperture NA:	0.40
Coating:	Uncoated
Wavelength Range (nm):	400 - 2500
Back Focal Length BFL (mm):	-16.68
Focal Length Specification Wavelength (nm):	587.6
Focal Length Tolerance (%):	±1
Radius R ₁ (mm):	-11.77
Surface Quality:	40-20
Power (P-V) @ 632.8nm:	1.5λ
Irregularity (P-V) @ 632.8nm:	λ/4

Regulatory Compliance	
RoHS 2015:	Compliant
Reach 219:	Compliant
Certificate of Conformance:	View
Country of Origin:	Japan
Imported By:	Edmund Optics India Private Limited

Product Details

- Wavelength Range of 400-2200nm
- Precision Diameter and Centration Tolerances Allow for Easy OEM Integration
- Wide Variety of Diameters, Focal Lengths, and Coatings
- Anti-Reflection Coating Options: [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

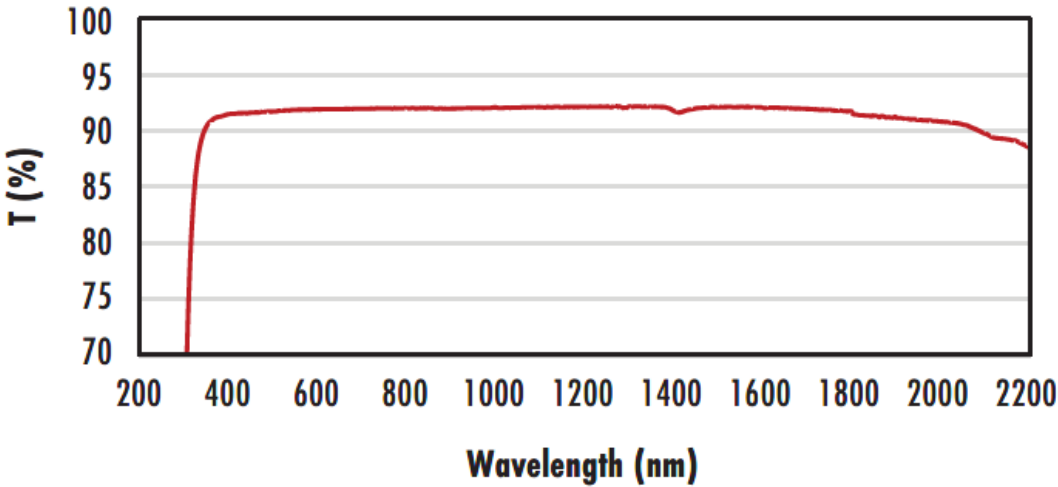
TECHSPEC® Uncoated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® Uncoated Plano-Concave (PCV) Lenses offer optimal performance in the 350nm to 2200nm range. These lenses are also available [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

Technical Information



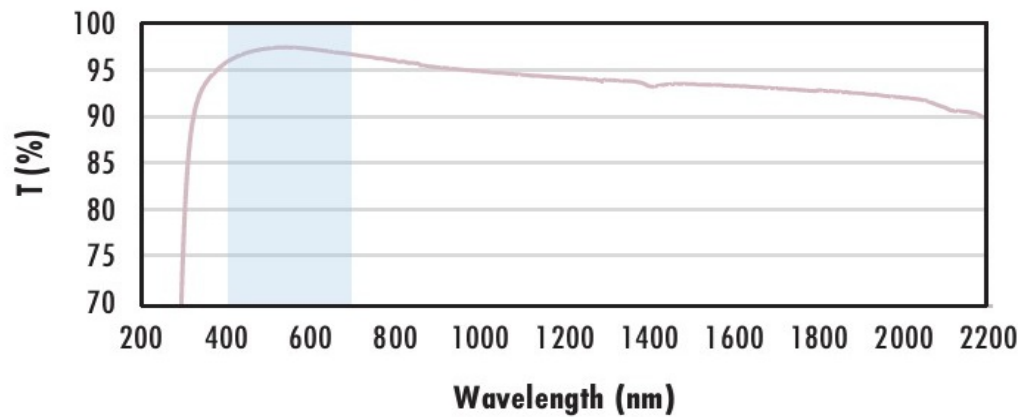
N-BK7

Uncoated N-BK7 Typical Transmission



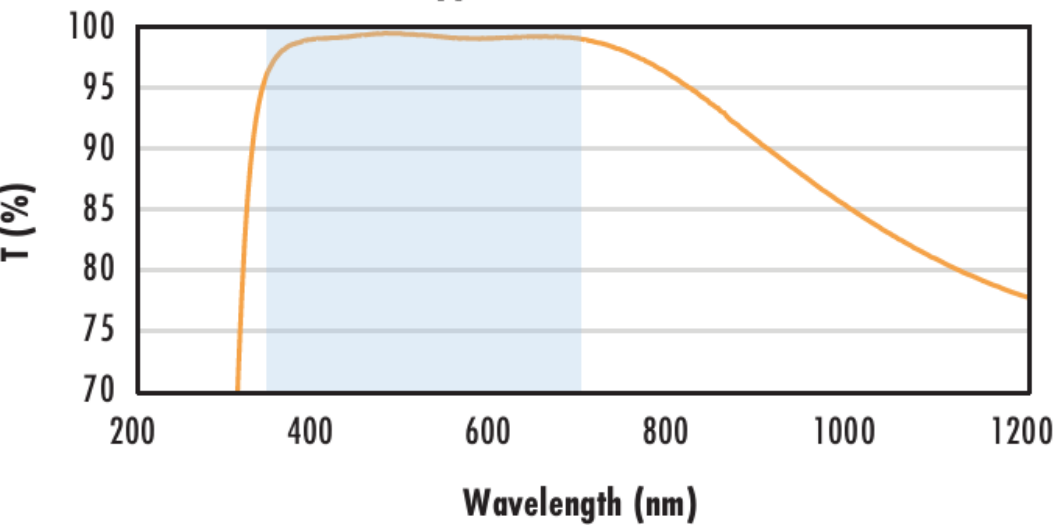
Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV- NIR spectra.
[Click Here to Download Data](#)

N-BK7 with MgF₂ Coating
Typical Transmission



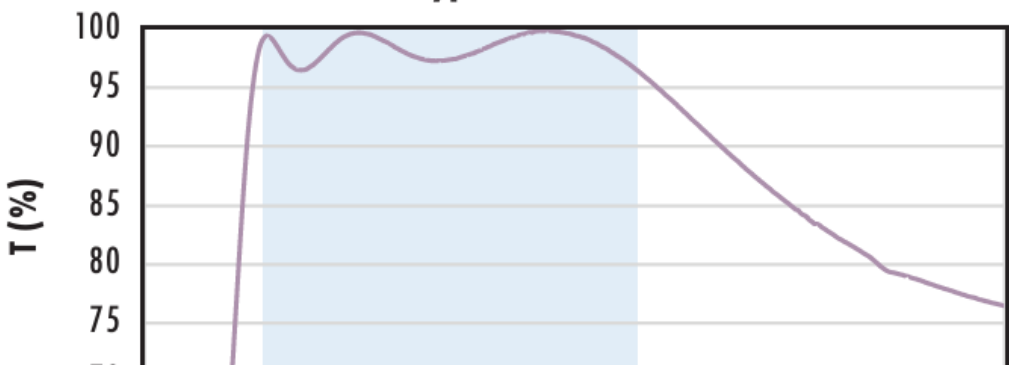
Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI.
The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7)
Data outside this range is not guaranteed and is for reference only.
[Click Here to Download Data](#)

N-BK7 with VIS-EXT Coating
Typical Transmission

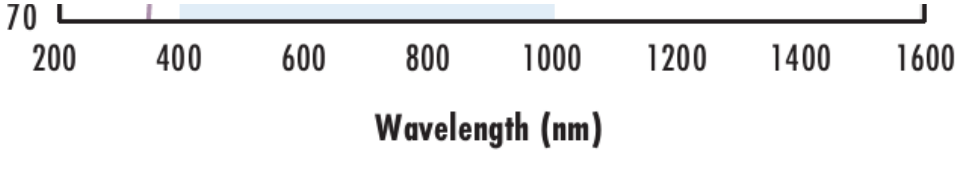
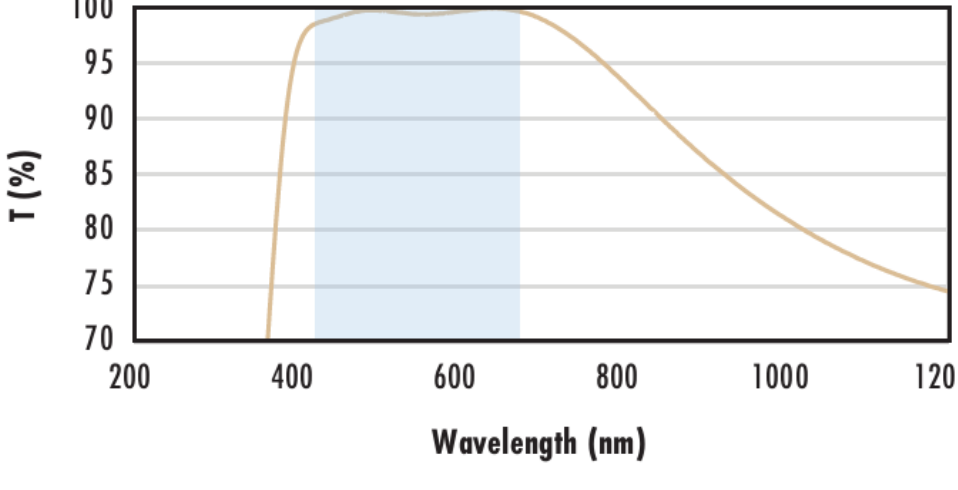
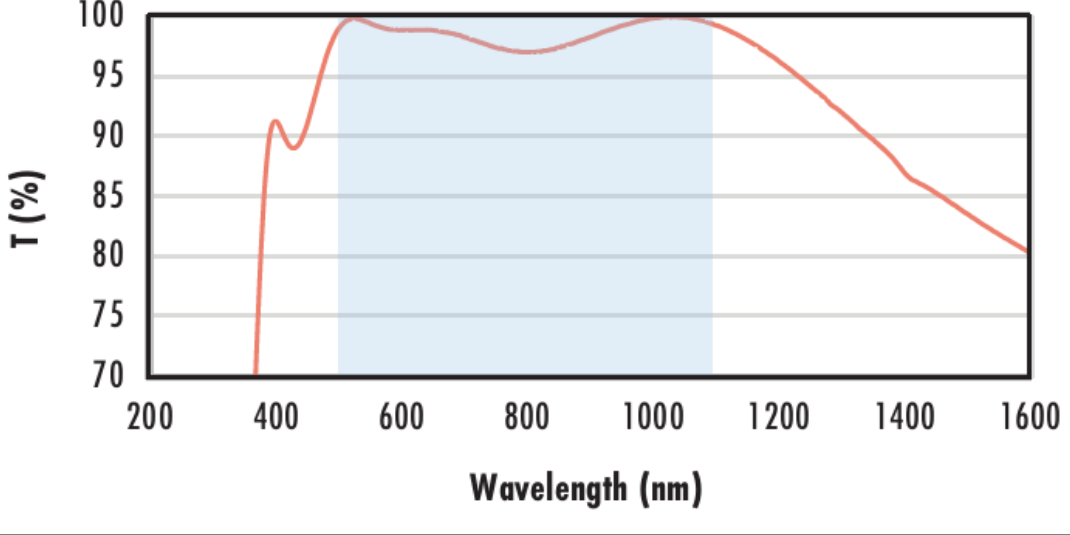
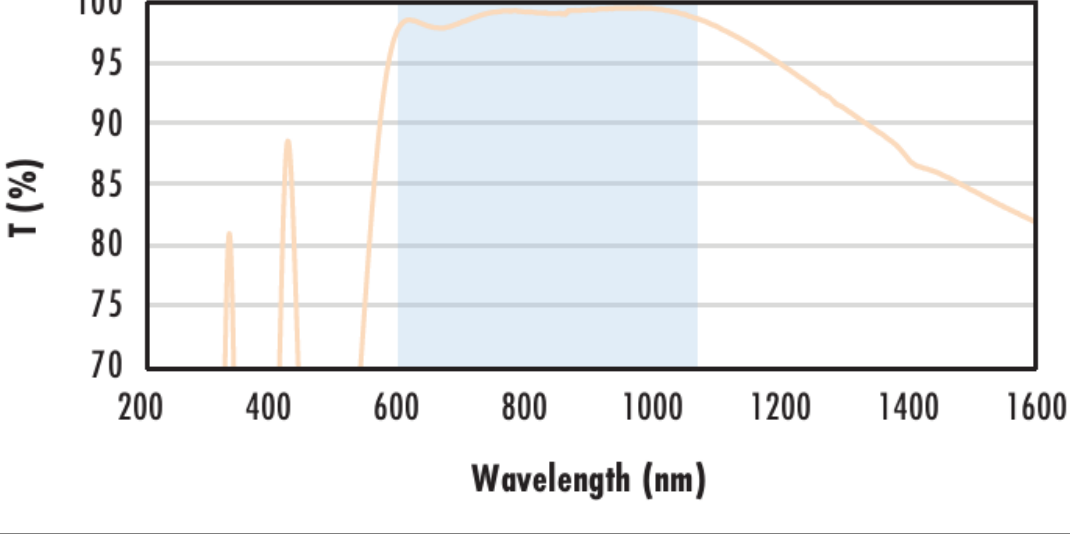
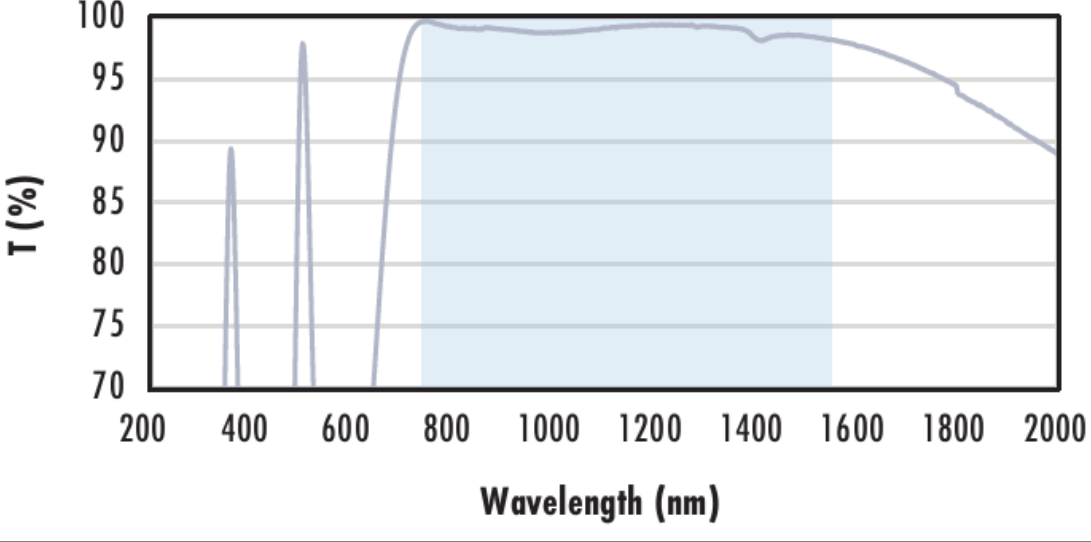


Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.
The blue shaded region indicates the coating design wavelength range, with the following specification:
 $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$
Data outside this range is not guaranteed and is for reference 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:
 $R_{abs} \leq 0.25\% @ 880\text{nm}$
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$
Data outside this range is not guaranteed and is for reference only.
[Click Here to Download Data](#)

	
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 - 675nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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. Click Here to Download Data
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. Click Here to Download Data
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. Click Here to Download Data

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

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Compatible Mounts
