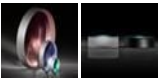


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TECHSPEC[®] 9mm Diameter x -18 FL, VIS-NIR Coated, Plano-Concave Lens



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



Stock **#45-914** 20+ In Stock

[Other Coating Options](#)

-

1

+

€48⁷⁵

ADD TO CART

Volume Pricing	
Qty 1-9	€48,75 each
Qty 10-25	€43,75 each
Qty 26-49	€39,00 each
Need More?	Request Quote

i Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Plano-Concave Lens

Type:

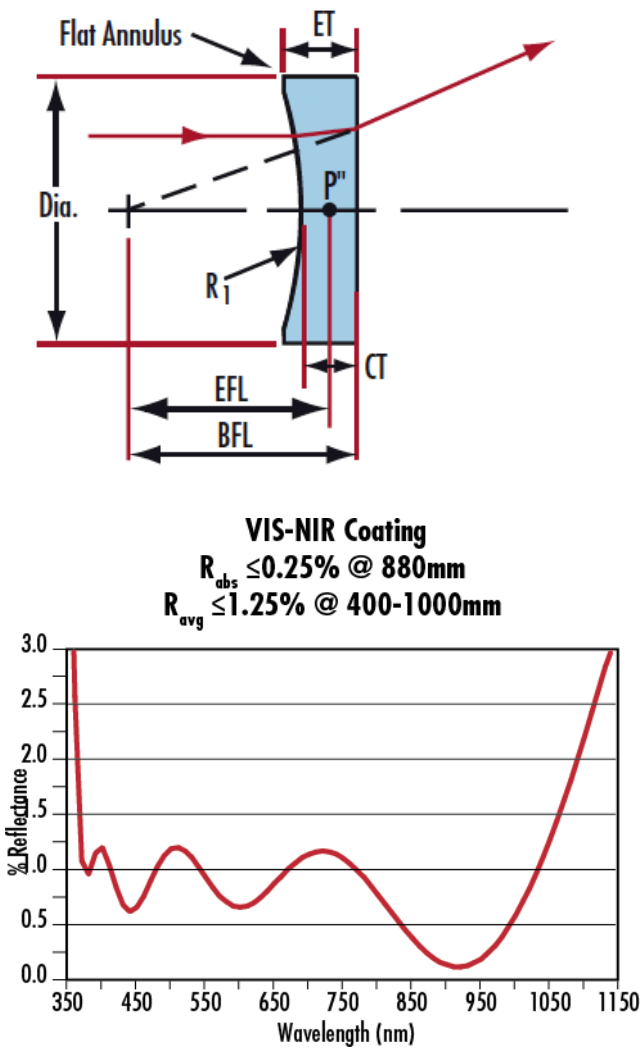
Physical & Mechanical Properties

9.00 +0.0/-0.025	Diameter (mm):
Protective as needed	Bevel:
2.25	Center Thickness CT (mm):
±0.05	Center Thickness Tolerance (mm):
<1	Centering (arcmin):
8.1	Clear Aperture CA (mm):
2.89	Edge Thickness ET (mm):
Optical Properties	
-18.00	Effective Focal Length EFL (mm):
N-SF11	Substrate: □
2.00	f/#:
0.25	Numerical Aperture NA:
VIS-NIR (400-1000nm)	Coating:
400 - 1000	Wavelength Range (nm):
-19.26	Back Focal Length BFL (mm):
R _{abs} ≤0.25% @ 880nm R _{avg} ≤1.25% @ 400 - 870nm R _{avg} ≤1.25% @ 890 - 1000nm	Coating Specification:
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
-14.12	Radius R ₁ (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:
Compliant	Reach 219:
View	Certificate of Conformance:

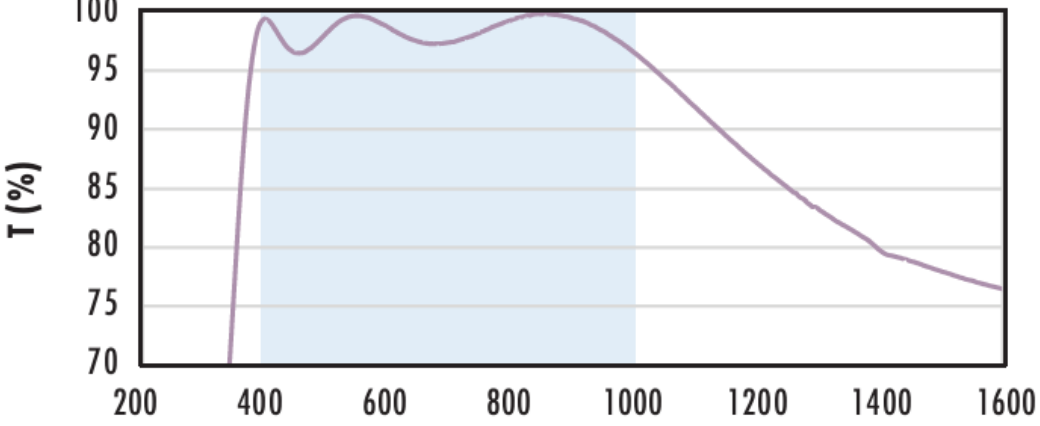
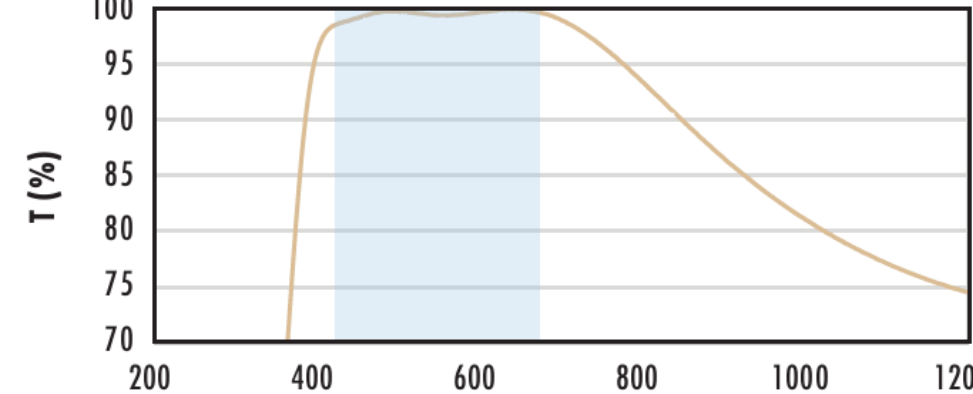
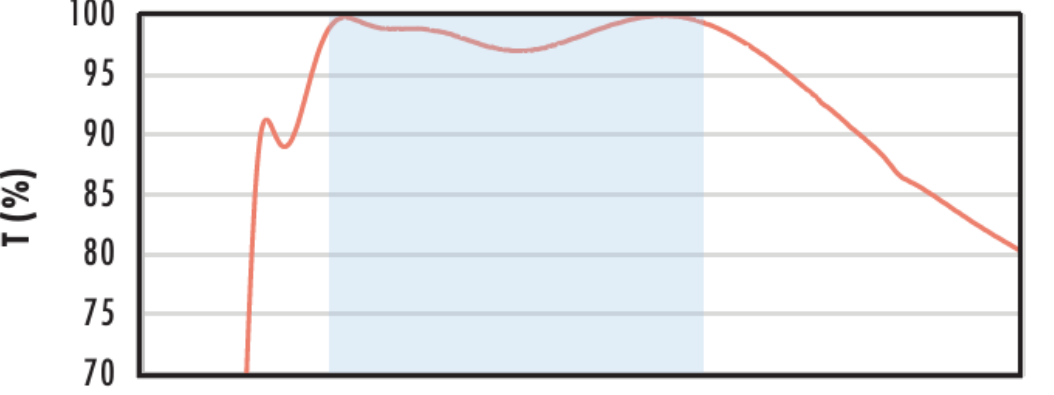
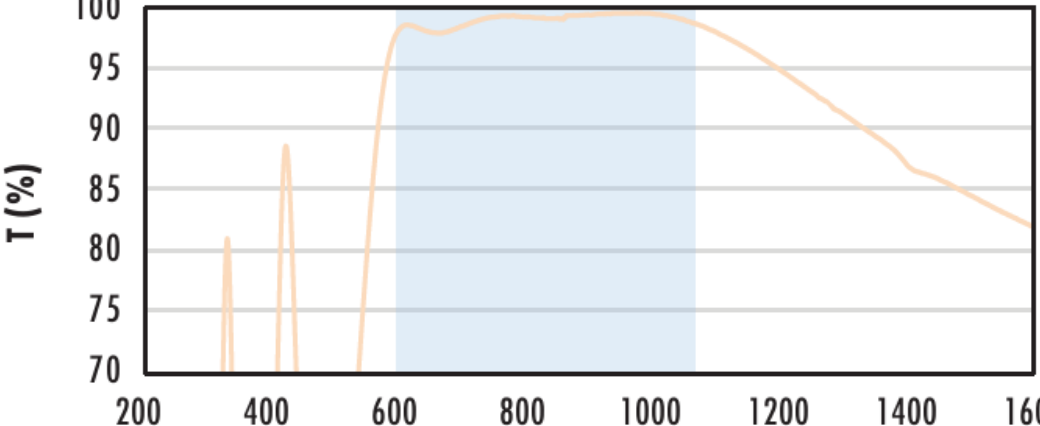
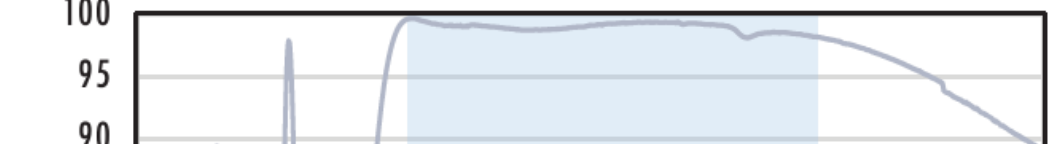
Product Details

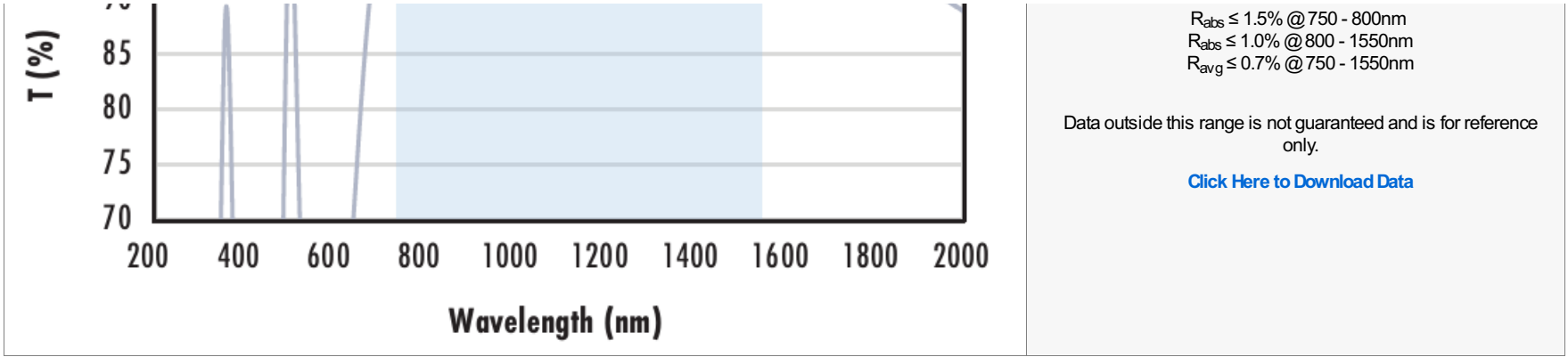
- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
 - <0.25% Reflectance @ 880nm
 - Designed for 0° Angle of Incidence
 - Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)
- TECHSPEC® VIS-NIR Coated Plano-Concave (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](#), [MgF₂](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

Technical Information



N-BK7	
Uncoated N-BK7 Typical Transmission The graph shows transmission T (%) on the y-axis (70 to 100) versus wavelength (nm) on the x-axis (200 to 2200). The transmission curve starts at approximately 70% at 200 nm, rises sharply to about 92% by 400 nm, and then remains relatively flat, ending at approximately 88% at 2200 nm.	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 The graph shows transmission T (%) on the y-axis (70 to 100) versus wavelength (nm) on the x-axis (200 to 2200). The transmission curve starts at approximately 70% at 200 nm, rises to about 95% by 400 nm, and then gradually decreases to approximately 90% at 2200 nm. A blue shaded region highlights the design wavelength range from 400 nm to 700 nm, where the transmission is consistently above 95%.	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: $R_{\text{avg}} \leq 1.75\% @ 400 - 700\text{nm}$ (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 The graph shows transmission T (%) on the y-axis (70 to 100) versus wavelength (nm) on the x-axis (200 to 1200). The transmission curve starts at approximately 70% at 200 nm, rises to about 98% by 400 nm, and then gradually decreases to approximately 78% at 1200 nm. A blue shaded region highlights the design wavelength range from 350 nm to 700 nm, where the transmission is consistently above 98%.	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. Click Here to Download Data

Wavelength (nm) N-BK7 with VIS-NIR Coating Typical Transmission  Wavelength (nm)	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: $R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$ $R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Wavelength (nm) N-BK7 with VIS 0° Coating Typical Transmission  Wavelength (nm)	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: $R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Wavelength (nm) N-BK7 with YAG-BBAR Coating Typical Transmission  Wavelength (nm)	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: $R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}$ $R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$ $R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Wavelength (nm) N-BK7 with NIR I Coating Typical Transmission  Wavelength (nm)	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: $R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Wavelength (nm) N-BK7 with NIR II Coating Typical Transmission  Wavelength (nm)	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:



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

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Compatible Mounts