

**TECHSPEC® 9mm Dia. x 45mm FL, VIS-NIR Coated, Achromatic Lens**



Stock #49-318 **20+ In Stock**

[Other Coating Options](#)

⊖ 1 ⊕ €85<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-5	€85,00 each
Qty 6-25	€68,00 each
Qty 26-49	€63,50 each
Need More?	<a href="#">Request Quote</a>

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

**General**

Achromatic Lens **Type:**

**Physical & Mechanical Properties**

9.00 +0.0/-0.025	<b>Diameter (mm):</b>
8.1	<b>Clear Aperture CA (mm):</b>
<1	<b>Centering (arcmin):</b>
4.30 ±0.10	<b>Center Thickness CT (mm):</b>
3.00 ±0.05	<b>Center Thickness CT 1 (mm):</b>
1.30 ±0.05	<b>Center Thickness CT 2 (mm):</b>
3.76	<b>Edge Thickness ET (mm):</b>
Protective as needed	<b>Bevel:</b>

## Optical Properties

45.00	<b>Effective Focal Length EFL (mm):</b>
±1	<b>Focal Length Tolerance (%):</b>
42.97	<b>Back Focal Length BFL (mm):</b>
587.6	<b>Focal Length Specification Wavelength (nm):</b>
27.83	<b>Radius R<sub>1</sub> (mm):</b>
-19.75	<b>Radius R<sub>2</sub> (mm):</b>
-57.06	<b>Radius R<sub>3</sub> (mm):</b>
<a href="#">N-BK7 / N-SF5</a>	<b>Substrate:</b> <input type="checkbox"/>
40-20	<b>Surface Quality:</b>
5.00	<b>f#:</b>
0.10	<b>Numerical Aperture NA:</b>
VIS-NIR (400-1000nm)	<b>Coating:</b>
R <sub>abs</sub> ≤0.25% @ 880nm R <sub>avg</sub> ≤1.25% @ 400 - 870nm R <sub>avg</sub> ≤1.25% @ 890 - 1000nm	<b>Coating Specification:</b>
1.5λ	<b>Power (P-V) @ 632.8nm:</b>
M4	<b>Irregularity (P-V) @ 632.8nm:</b>
400 - 1000	<b>Wavelength Range (nm):</b>

## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</b>
<a href="#">Compliant</a>	<b>REACH 241:</b>

## Need different specs or modifications?

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](#).

## Product Details

- Designed for  $0^\circ$  Angle of Incidence
- Less Than 0.25% Reflectance Per Surface @ 880nm
- $MgF_2$  and VIS  $0^\circ$  Coated Achromats Also Available

TECHSPEC® VIS-NIR Coated Achromatic Lenses consist of two optical components cemented together to form an achromatic doublet. The doublet is computer optimized to correct for on-axis spherical and chromatic aberrations. TECHSPEC® VIS-NIR Coated Achromatic Lenses have visible/near-infrared broadband anti-reflection coating, which is specially optimized to yield maximum transmission (>99%) in the near-infrared. The achromatic lenses reduce reflection to less than 0.25 percent per surface at 880nm. [Magnesium Fluoride](#) coated and [VIS  \$0^\circ\$](#)  coated achromats are also available.

## Technical Information



## Coating Curves

## Compatible Mounts