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TECHSPEC® 12.5mm Diameter x 20mm EFL Aspherized Achromatic Lens



Aspherized Achromatic Lenses



Stock #49-659 CLEARANCE **20+ In Stock**

⊖ 1 ⊕ **SS173⁰⁰**

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| Qty 1+ | SS173.60 each |
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Product Downloads

General

Note:
 VS 0° Coating on First Surface, Second Surface is Aspheric Polymer

Type:
 Achromatic Lens

Physical & Mechanical Properties

Diameter (mm):
 12.50 +0.00/-0.05

| | |
|-------|-----------------------------|
| 11.00 | Clear Aperture CA (mm): |
| ≤5 | Centering (arcmin): |
| 6.58 | Center Thickness CT (mm): |
| 5.00 | Center Thickness CT 1 (mm): |
| 1.58 | Center Thickness CT 2 (mm): |
| 5.01 | Edge Thickness ET (mm): |

Optical Properties

| | |
|---|---|
| 20.00 | Effective Focal Length EFL (mm): |
| 16.07 | Back Focal Length BFL (mm): |
| 587.6 | Focal Length Specification Wavelength (nm): |
| 13.30 | Radius R ₁ (mm): |
| 20.00 | Radius R ₂ (mm): |
| 204.48 | Radius R ₃ (mm): |
| N-LAK8 / N-SF57 | Substrate: <input type="checkbox"/> |
| 60-40, glass surface 80-50, polymer surface | Surface Quality: |
| 1.6 | f#: |
| 0.31 | Numerical Aperture NA: |
| VIS 0° (425-675nm) | Coating: |
| R _{avg} ≤ 0.4% @ 425 - 675nm | Coating Specification: |
| 425 - 675 | Wavelength Range (nm): |

Environmental & Durability Factors

| | |
|---------------|-----------------------------|
| -20°C to 80°C | Operating Temperature (°C): |
|---------------|-----------------------------|

Regulatory Compliance

| | |
|---------------------------|-----------------------------|
| Compliant | RoHS 2015: |
| Compliant | Reach 219: |
| View | Certificate of Conformance: |

Product Details

- Unique Innovative Design, Low Cost, Color-Corrected Asphere
- Better Color Correction than Standard Achromatic Lenses
- Similar Spherical Aberration Correction to Machined Aspheres
- Prescription Information Available

TECHSPEC® Aspherized Achromats bridge the gap between color-corrected achromats and spherical aberration-corrected aspheres. This unique design results in a cost-effective, color-corrected aspheric component. The doublet lenses consist of two cemented elements matched for their color-correction ability and small RMS spot size. The second surface of the doublet is fused with a molded polymer aspheric surface. These molds create a stable aspheric contour, removing or reducing wavefront errors present in typical achromats while boosting numerical aperture. TECHSPEC Aspherized Achromats' typical applications include fiber optic focusing or collimation, image relay, inspection, scanning, and high numerical aperture imaging.

These lenses were honored with the PhAST/Laser Focus World Innovation Award for Optics and Optical Components.

Technical Information

Spot Size



12.5 x 14 Aspherized Achromat

Spot Size



12.5 x 14 Standard Achromat



CT: Center Thickness, ET: Edge Thickness, R: Radius, P: Principal Plane, BFL: Back Focal Length, EFL: Effective Focal Length

Coating Curves

Compatible Mounts