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TECHSPEC® 12.7mm Dia. x 19.1mm FL, MgF_2 Coated, Achromatic Doublet Lens

MgF_2 Coated Achromatic Lenses

Stock **#49-759** **20+ In Stock**

Other Coating Options

- 1 + **S$120.40**

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Volume Pricing	
Qty 1-5	**S$120.40** each
Qty 6-25	**S$95.90** each
Qty 26-49	**S$91.00** each
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Product Downloads

General

Type:

Achromatic Lens

Physical & Mechanical Properties

Diameter (mm):

12.70 +0.0/-0.025

Clear Aperture CA (mm):
11.70

Centering (arcmin):
<1

Center Thickness CT (mm):
6.75 ±0.20

Center Thickness CT 1 (mm):
5.25 ±0.10

Center Thickness CT 2 (mm):
1.50 ±0.10

Edge Thickness ET (mm):
4.72

Bevel:
Protective as needed

Optical Properties

Effective Focal Length EFL (mm):
19.10

Focal Length Tolerance (%):
±1

Back Focal Length BFL (mm):
15.38

Focal Length Specification Wavelength (nm):
587.6

Radius R_1 (mm):
13.19

Radius R_2 (mm):
-10.22

Radius R_3 (mm):
-50.88

Substrate:
N-BAF10 / N-SF6

Surface Quality:
40-20

f/#:
1.5

Numerical Aperture NA:
0.33

Coating:
MgF_2 (400-700nm)

Coating Specification:
R_{avg} ≤1.75% @ 400 - 700nm

Power (P-V) @ 632.8nm:
1.5λ

Irregularity (P-V) @ 632.8nm:
λ/4

Wavelength Range (nm):
400 - 700

Regulatory Compliance

RoHS 2015:
Compliant

Reach 224:
Compliant

Certificate of Conformance:
View

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.

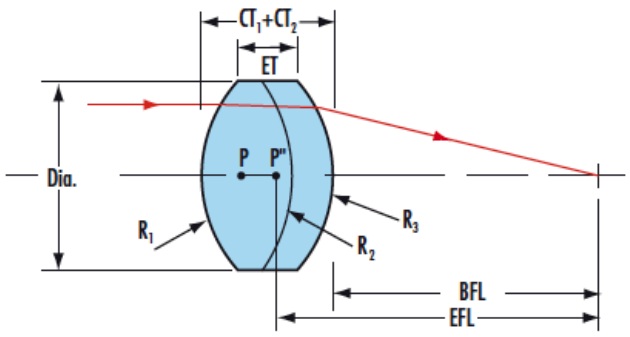
Product Details

- Designed for 0° Angle of Incidence

- Less Than 1.75% Reflectance Per Surface @ 400 - 700nm
- **VIS 0°** and **VIS-NIR** Coated Achromats Also Available

TECHSPEC ® MgF2 Coated Achromatic Lenses consist of two optical components cemented together to form an achromatic doublet which is computer optimized to correct for on-axis spherical and chromatic aberrations. These lenses feature a single layer of MgF2 which provides less than 1.75% reflectivity from 400 – 700nm. TECHSPEC MgF2 Coated Achromatic Lenses are best for applications involving multi-color (white light) imaging due to their specific doublet lens pairing that enables them to correct the color separation inherent in glass. Having eliminated the problematic chromatic aberrations, achromatic doublet lenses become the most cost-efficient means for polychromatic illumination and imaging.

Technical Information



Coating Curves

Compatible Mounts

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