

TECHSPEC®

5mm Dia. x 12.5mm FL, MgF₂ Coated, Achromatic Doublet Lens



Stock #49-923 **20+ In Stock** [Other Coating Options](#)

1 **£64^{.80}**

ADD TO CART

MgF₂ Coated Achromatic Lenses



Volume Pricing	
Qty 1-5	£64.80 each
Qty 6-25	£52.00 each
Qty 26-49	£48.40 each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads	
STEP:stp	PDF Drawing:pdf
ISO 10110 Drawing	
IGES:igs	Spec Sheets:pdf
Zemax:zar	Zemax:zmx
eDrawing:easm	Code V:seq
EO Spec Sheet	Download All

General

Type: Achromatic Lens

Physical & Mechanical Properties

Diameter (mm):	5.00 +0.0/-0.025	Clear Aperture CA (mm):	4.5
Centering (arcmin):	<1	Center Thickness CT (mm):	3.30 ±0.10
Center Thickness CT 1 (mm):	2.30 ±0.05	Center Thickness CT 2 (mm):	1.00 ±0.05
Edge Thickness ET (mm):	2.78	Bevel:	Protective as needed

Optical Properties

Effective Focal Length EFL (mm):	12.50	Focal Length Tolerance (%):	±1
Back Focal Length BFL (mm):	10.89	Focal Length Specification Wavelength (nm):	587.6
Radius R₁ (mm):	8.57	Radius R₂ (mm):	-6.22
Radius R₃ (mm):	-21.36	Substrate: ⓘ	N-SSK8 / N-SF56
Surface Quality:	40-20	f/#:	2.5

Numerical Aperture NA:	0.20	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

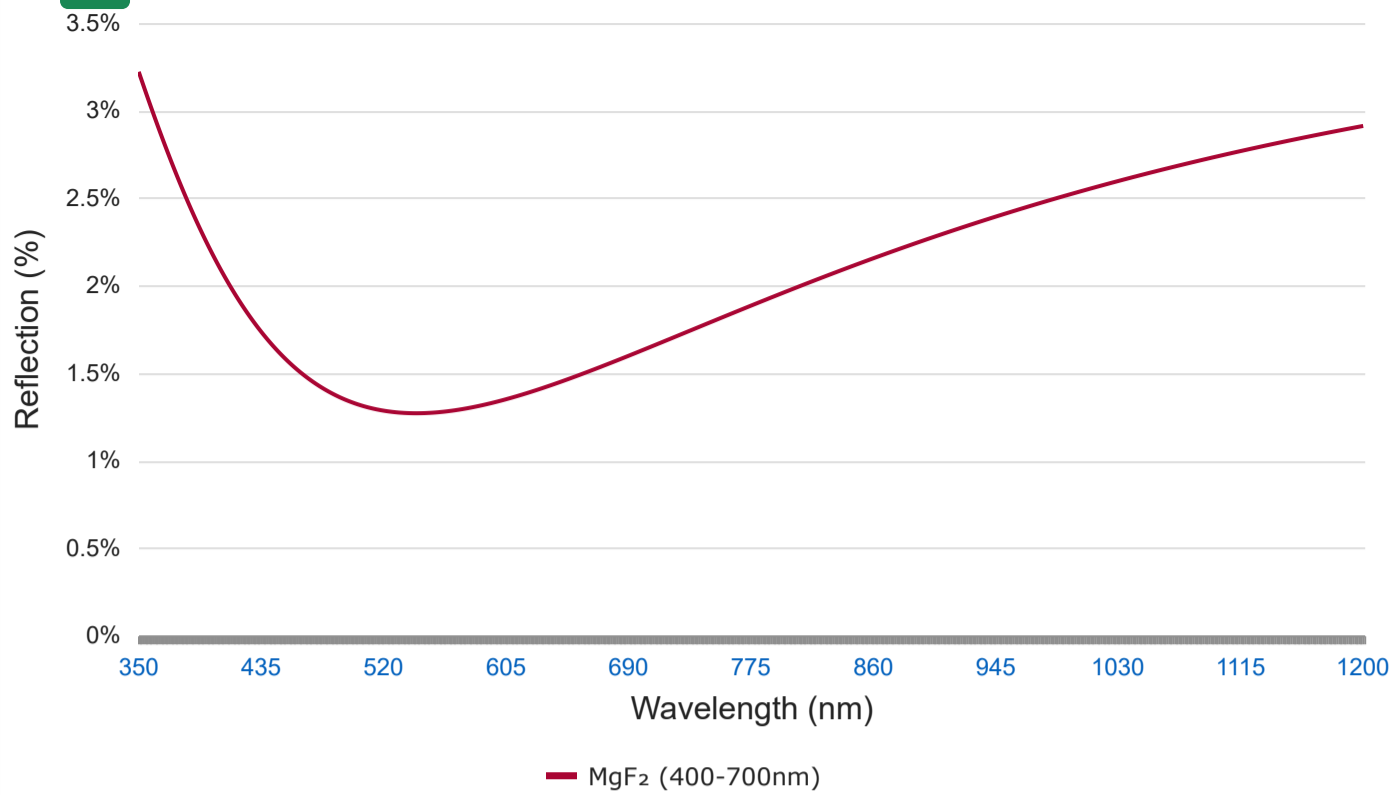
- Designed for 0° Angle of Incidence
- Less Than 1.75% Reflectance Per Surface @ 400 - 700nm
- **VIS 0°** and **VIS-NIR** Coated Achromats Also Available

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

MgF₂ (400-700nm)



SHIFT + SELECT an area on CURVE to zoom

Please note that coating performance outside each product's specified design range is theoretical and may vary.

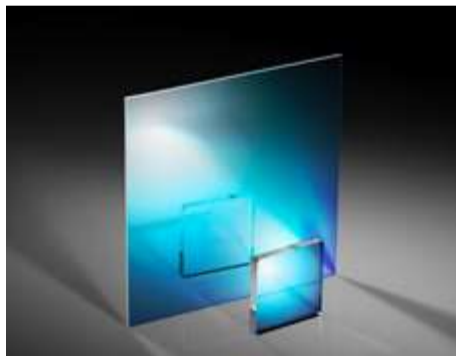
Related Products



#13-800 - Small Lens Clamp for 4-8mm Dia. Optics
£137.60

Qty

Frequently Purchased Together



#31-416 - 12 x 19mm, 10R/90T, Plate Beamsplitter
£32.00

Qty



#32-303 - 6.25mm Dia. x 20mm FL, MgF₂ Coated, Achromatic Doublet Lens
£56.80

Qty



#32-305 - 6.25mm Dia. x 25mm FL, MgF₂ Coated, Achromatic Doublet Lens
£56.80









Qty



#32-307 - 6.25mm Dia. x 35mm FL, MgF₂ Coated, Achromatic Doublet Lens
£56.80

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	5.0mm Optic Dia., Optic Mount	Fixed		#64-551	£26.20 Request Quote	14 In Stock <input type="text" value="1"/> 
MORE+ 	5mm Diameter, S-Mount Thick Optic Mount	Fixed		#63-948	£32.60 Request Quote	2 In Stock <input type="text" value="1"/> 
MORE+ 	5mm Inner Single Optic Mount	Fixed		#38-744	£32.80 Request Quote	2 In Stock <input type="text" value="1"/> 
MORE+ 	5mm Diameter, C-Mount Thick Optic Mount	Fixed		#57-974	£47.60 Request Quote	5 In Stock <input type="text" value="1"/> 

Check out our full selection of mounts [here](#).

Resources

Media Type

- Application Note
- Scientific Paper
- Video
- FAQ
- Glossary

 APPLICATION NOTE

Anti-Reflection (AR) Coatings

 APPLICATION NOTE

An Introduction to Optical Coatings

 APPLICATION NOTE

Lens Geometry Performance Comparison

 SCIENTIFIC PAPER

Achrotech: achromat cost versus performance...

 APPLICATION NOTE

Why Use an Achromatic Lens?

 VIDEO

Achromatic Lenses Review

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