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TECHSPEC® 510nm, 12.5 x 17.6mm, Dichroic Filter



TECHSPEC® Fluorescence Dichroic Filters

Stock **#86-318** **3 In Stock**

⊖ 1 ⊕ €205⁰⁰

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Volume Pricing

Qty 1-5	€205,00 each
Qty 6-25	€174,00 each
Qty 26-49	€162,00 each
Need More?	Request Quote

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Dichroic Filter **Type:**

Physical & Mechanical Properties

12.5 x 17.6 **Dimensions (mm):**

Length (mm):

17.60

1.05 ±0.1 **Thickness (mm):**

12.50 **Width (mm):**

+0.0/-0.2 **Dimensional Tolerance (mm):**

Physical Durability:
Adhesion per MIL-PRF-13830B, Section C.4.5.12
Moderate abrasion per MIL-PRF-13830B, Section C.4.5.11
Cleaning per ML-C-48497A Section 4.5.4.2

Optical Properties

45 **Angle of Incidence (°):**

510.00 ±5.0 **Cut-On Wavelength (nm):**

Substrate:
[Fused Silica](#) (Corning 7980)

Hard Coated **Coating:**

98.00 (average) **Reflection (%):**

350 - 488 **Reflection Wavelength (nm):**

60-40 **Surface Quality:**

90.00 (average) **Transmission (%):**

515 - 850 **Transmission Wavelength (nm):**

1λ **Transmitted Wavefront, RMS:**

325 - 850 **Wavelength Range (nm):**

Environmental & Durability Factors

Environmental Durability:
Humidity per ML-STD-810H, Section 507.6
Temperature per ML-STD-810H, Section 501.7 and 502.7

Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[View](#) **Certificate of Conformance:**

[Compliant](#) **Reach 247:**

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

- Ideal for Fluorescence or Multispectral Imaging
- Sharp Transition from Reflection to Transmission
- Extended Reflection and Transmission Bands
- [High Performance Fluorescence Dichroic Filters](#) are also available

TECHSPEC® Fluorescence Dichroic Filters (sometimes referred to as dichroic plate beamsplitters or dichroic mirrors) feature broad, flat transmission and reflection ranges with an ultra-steep slope between them. These attributes make them ideal for fluorescence imaging or spectral sorting applications, including DNA sequencing and polymerase chain reaction (PCR) diagnostic instruments. They are a perfect complement to our [TECHSPEC® Fluorescence Bandpass Filters](#). TECHSPEC Fluorescence Dichroic Filters, in the 25.2 x 35.6mm size will fit into most common Nikon, Zeiss, and Olympus fluorescence microscopes. The other sizes are well suited to benchtop setups or OEM instrumentation requiring beam separation, beam combination, or multi-spectral detection.

Note: The chevron on the edge of the filter points towards surface S1 with the primary filter coating on which the light should be incident.

Technical Information



Filter Type	Transmitted Wavefront (RMS)	Surface Quality	Surface Flatness (P-V)	R(avg)	T(avg)
HP Dichroic	$\lambda/10$	40-20	$\lambda/2$	>98%	>90%
Fluorescence Dichroics	1 λ	60-40	-	>98%	>90%
Dichroic Longpass	$\lambda/4$	40-20	-	>97%	>85%

Compatible Mounts