

**TECHSPEC® 450nm, 12.5 x 17.6mm High Performance Fluorescence Dichroic Filter**



Stock #34-728 **12 In Stock**

⊖ 1 ⊕ A\$508.<sup>80</sup>

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Volume Pricing	
Qty 1-5	A\$508.80 each
Qty 6-25	A\$432.00 each
Qty 26-49	A\$401.60 each
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**General**

Dichroic Filter **Type:**

**Physical & Mechanical Properties**

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

17.60 **Length (mm):**

1.05 ±0.1	<b>Thickness (mm):</b>
12.50	<b>Width (mm):</b>
+0.0/-0.2	<b>Dimensional Tolerance (mm):</b>
<b>Physical Durability:</b>	
Adhesion per ML-PRF-13830B, Section C.4.5.12	
Moderate abrasion per ML-PRF-13830B, Section C.4.5.11	
Cleaning per ML-C-48497A Section 4.5.4.2	

## Optical Properties

45	<b>Angle of Incidence (°):</b>
450.00	<b>Cut-On Wavelength (nm):</b>
<b>Fused Silica</b> (Corning 7980)	<b>Substrate:</b> <input type="checkbox"/>
Hard Coated	<b>Coating:</b>
R <sub>avg</sub> >98%	<b>Reflection (%):</b>
350 - 430	<b>Reflection Wavelength (nm):</b>
40-20	<b>Surface Quality:</b>
T <sub>avg</sub> >90%	<b>Transmission (%):</b>
457 - 850	<b>Transmission Wavelength (nm):</b>
λ/10	<b>Transmitted Wavefront, RMS:</b>
350 - 850	<b>Wavelength Range (nm):</b>
λ/2	<b>Surface Flatness (P-V):</b>

## Environmental & Durability Factors

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

## Regulatory Compliance

<b>Compliant</b>	<b>RoHS 2015:</b>
<b>View</b>	<b>Certificate of Conformance:</b>
<b>Compliant</b>	<b>Reach 247:</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

- Improved Flatness, Transmitted Wavefront, and Surface Quality
- Ideal for Fluorescence Microscopy or High Magnification Imaging Applications
- Most Popular Cut-On Wavelengths of Fluorescence and Longpass Dichroic Filters
- Standard [Fluorescence Dichroic Filters](#) are also available

Our TECHSPEC® High Performance Fluorescence Dichroic Filters feature the same broad, flat transmission and reflection ranges as our popular TECHSPEC® Fluorescence Dichroic Filters, but have improved physical parameters. Special attention to surface flatness, transmitted wavefront, and surface quality have resulted in our highest level of precision yet on a filter. These rectangular filters fit into most common Nikon, Zeiss, and Olympus fluorescence microscopes. High Performance Fluorescence Dichroic Filters are a perfect complement to our TECHSPEC® Fluorescence Bandpass Filters. For specific wavelength or size requirements, numerous custom options are available.

The TECHSPEC® 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.

**Note:** The filter should be oriented in such a way that the incoming light is incident on the surface that the chevron on the edge of the filter points towards (the dielectrically coated surface).

## 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	$1\lambda$	60-40	-	>98%	>90%
Dichroic Longpass	$\lambda/4$	40-20	-	>97%	>85%

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