

TECHSPEC[®] 450nm, 12.5mm Diameter, Dichroic Longpass Filter



Stock #69-865 3 In Stock

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1

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€143^{.00}

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Volume Pricing	
Qty 1-5	€143,00 each
Qty 6-25	€122,00 each
Qty 26-49	€113,00 each
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Product Downloads

General

Dichroic FilterType:

Physical & Mechanical Properties

12.50Diameter (mm):

1.05 ±0.1Thickness (mm):

	Dimensional Tolerance (mm):
+0.0/-0.2	
	Physical Durability:
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

	Angle of Incidence (°):
45	
	Cut-On Wavelength (nm):
450.00	

	Substrate: ☐
Fused Silica (Corning 7980)	
	Coating:
Hard Coated	

	Reflection (%):
>97, Average Polarization	
>95, Absolute Polarization	
	Reflection Wavelength (nm):
350 - 430	

	Surface Quality:
60-40	
	Transmission (%):
>85, Average Polarization	
>80, Absolute Polarization	

	Transmission Wavelength (nm):
470 - 1600	
	Transmitted Wavefront Tolerance:
λ/4	

	Cut-On Tolerance (%):
±2	
	Slope Factor (%):
3.00	

	Wavelength Range (nm):
350 - 1600	
	Wavelength Range (μm):
0.35 - 1.6	

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

	RoHS 2015:
Compliant	
	Certificate of Conformance:
View	

	Reach 247:
Compliant	

Product Details

- Ideal for Fluorescence or Multispectral Imaging
- Sharp Cut-On Wavelength
- Broad Transmission and Reflection Ranges

Our TECHSPEC® Dichroic Longpass Filters are designed for a 45° angle of incidence. The rejected light is reflected at 90°, making these filters ideal for use in fluorescence applications or as spectral [beamsplitters](#). These hard coated filters feature low polarization dependence, broad spectral ranges, and a precision fused silica substrate. Reflection and transmission curves are available to easily integrate TECHSPEC® Dichroic Longpass Filters into any application.

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.

Hard coatings are used to increase durability while maintaining performance. The hard coating provides Dichroic Longpass Filters with high resistance to humidity, temperature, and abrasion, while also reducing the risk of damage when being handled.

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

Custom

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](#).

Compatible Mounts