

TECHSPEC® 650nm, 12.5mm Diameter, Dichroic Longpass Filter



Stock **#69-869** **5 In Stock**

⊖ 1 ⊕ **S\$200^{.20}**

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Volume Pricing	
Qty 1-5	S\$200.20 each
Qty 6-25	S\$170.80 each
Qty 26-49	S\$158.20 each
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General

Dichroic Filter **Type:**

Physical & Mechanical Properties

12.50 **Diameter (mm):**

1.05 ±0.1 **Thickness (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):

650.00

Substrate:

Fused Silica (Corning 7980)

Coating:

Hard Coated

Reflection (%):

>97, Average Polarization
 >95, Absolute Polarization

Reflection Wavelength (nm):

495 - 610

Surface Quality:

60-40

Transmission (%):

>85, Average Polarization
 >80, Absolute Polarization

Transmission Wavelength (nm):

675 - 1600

Transmitted Wavefront Tolerance:

λ/4

Cut-On Tolerance (%):

±2

Slope Factor (%):

3.00

Wavelength Range (nm):

495 - 1600

Wavelength Range (μm):

0.495 - 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

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 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%

Compatible Mounts