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**TECHSPEC® 450nm, 12.5mm Diameter, Dichroic Shortpass Filter**



TECHSPEC Dichroic Shortpass Filters

Stock **#69-177** **1 In Stock**

⊖ 1 ⊕ **S\$196<sup>00</sup>**

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Volume Pricing	
Qty 1-5	<b>S\$196.00</b> each
Qty 6-25	<b>S\$156.80</b> each
Qty 26-49	<b>S\$148.40</b> 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-Off Wavelength (nm):**  
450.00

**Substrate:**   
**Fused Silica** (Corning 7980)

**Coating:**  
Hard Coated

**P-Polarization Transmission (%):**  
>80

**Reflection (%):**  
>97 Average Polarization

**Reflection Wavelength (nm):**  
470 - 545

**S-Polarization Transmission (%):**  
>80

**Surface Quality:**  
60-40

**Transmission (%):**  
>85 Average Polarization

**Transmission Wavelength (nm):**  
325 - 430

**Transmitted Wavefront, RMS:**  
 $\lambda/4$

**Slope Factor (%):**  
3.00

**Cut-Off Tolerance (%):**  
 $\pm 2$

**S-Polarization Reflection (%):**  
>95

**P-Polarization Reflection (%):**  
>95

**Coating Specification:**  
Surface 1: Hard Dielectric Sputtered  
Surface 2: AR Coated

**Wavelength Range (nm):**  
325 - 545

## 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

- Sharp Cut-Off Wavelength

- Broad Transmission and Reflection Ranges
- Available in a Range of Common Sizes

Our TECHSPEC® Dichroic Shortpass 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. The filters feature low polarization dependence, broad spectral ranges, and a precision fused silica substrate. TECHSPEC® Dichroic Shortpass Filters have a sharp cut-off wavelength and are available in a wide range of sizes for ease of system integration. These filters can be combined with TECHSPEC® Dichroic Longpass Filters to create custom bandpass filters.

**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



## Compatible Mounts