

TECHSPEC<sup>®</sup> 850nm, 12.5 x 17.6mm High Performance Fluorescence Dichroic Filter



Stock **#34-748** 4 In Stock

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+

S\$445<sup>.20</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | S\$445.20 each                |
| Qty 6-25       | S\$378.00 each                |
| Qty 26-49      | S\$351.40 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                                                                                                                                                                    | Thickness (mm):             |
| 12.50                                                                                                                                                                        | Width (mm):                 |
| +0.0/-0.2                                                                                                                                                                    | Dimensional Tolerance (mm): |
| Physical Durability:<br>Adhesion per MIL-PRF-13830B, Section C.4.5.12<br>Moderate abrasion per MIL-PRF-13830B, Section C.4.5.11<br>Cleaning per MIL-C-48497A Section 4.5.4.2 |                             |

|                             |                               |
|-----------------------------|-------------------------------|
| Optical Properties          |                               |
| 45                          | Angle of Incidence (°):       |
| 850.00                      | Cut-On Wavelength (nm):       |
| Fused Silica (Corning 7980) | Substrate: □                  |
| Hard Coated                 | Coating:                      |
| R <sub>avg</sub> >98%       | Reflection (%):               |
| 635 - 805                   | Reflection Wavelength (nm):   |
| 40-20                       | Surface Quality:              |
| T <sub>avg</sub> >90%       | Transmission (%):             |
| 857 - 1050                  | Transmission Wavelength (nm): |
| λ/10                        | Transmitted Wavefront, RMS:   |
| 635 - 1050                  | Wavelength Range (nm):        |
| λ/2                         | Surface Flatness (P-V):       |

|                                                                                                                                |  |
|--------------------------------------------------------------------------------------------------------------------------------|--|
| Environmental & Durability Factors                                                                                             |  |
| Environmental Durability:<br>Humidity per MIL-STD-810H, Section 507.6<br>Temperature per MIL-STD-810H, Section 501.7 and 502.7 |  |

|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 247:                  |

## 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            | λ/10                        | 40-20           | λ/2                    | >98%   | >90%   |
| Fluorescence Dichroics | 1λ                          | 60-40           | -                      | >98%   | >90%   |
| Dichroic Longpass      | λ/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](#).

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