TECHSPEC®

# 390nm CWL, 50mm Dia, 40nm Bandwidth, OD 6 Fluorescence Filter

Stock #86-359 1 In Stock

- 1 +

£773.60

ADD TO CART

| Volume Pricing | |
|---|---|
| Qty 1-5 | £773.60 each |
| Qty 6-25 | £620.00 each |
| Qty 26-49 | £580.00 each |
| Need More? | Request Quote |

Prices shown are exclusive of VAT/local taxes

Product Downloads

STEP:step | Curve:pdf | PDF Drawing:pdf | IGES:igs | eDrawing:easm | EO Spec Sheet | Download All

## General

| | | | |
|---|---|---|---|
| **Type:** | Bandpass Filter | **Compatible Fluorophore:** | 405nm Laser Excitation |

## Physical & Mechanical Properties

| | | | |
|---|---|---|---|
| **Diameter (mm):** | 50.00 +0.00/-0.10 | **Clear Aperture CA (mm):** | 45.21 |
| **Construction:** | Mounted in Black Anodized Ring | **Physical Durability:** | Adhesion per MIL-PRF-13830B, Section C.4.5.12 Moderate abrasion per MIL-PRF-13830B, Section C.4.5.11 Cleaning per MIL-C-48497A Section 4.5.4.2 |
| **Substrate Thickness (mm):** | 2.00 ±0.25 | | |

## Optical Properties

| | | | |
|---|---|---|---|
| **Angle of Incidence (°):** | 0 ±5 | **Bandwidth (nm):** | 40.00 |
| **OD 6 Blocking Wavelength Range (nm):** | 426.5 - 474.5 | **Optical Density OD (Average):** | ≥6.0 |
| **Average Transmission (%):** | >90 over Bandwidth | **Center Wavelength CWL (nm):** | 390.00 |
| **Full Width-Half Max** | 45.00 | **Substrate:** ⓘ | Fused Silica (Corning 7980) |

| | | | |
|---|---|---|---|
| **FWHM (nm):** | | | |
| **Coating:** | Hard Coated | **Surface Quality:** | 60-40 |
| **Transmission (%):** | >90 | **Blocking Wavelength Range (nm):** | 250 - 1100 |
| **Transmitted Wavefront, RMS:** | λ/4 (prior to coating) | | |

## Threading & Mounting

| | | | |
|---|---|---|---|
| **Mount Thickness (mm):** | 3.5 ±0.1 | | |

## Environmental & Durability Factors

| | | | |
|---|---|---|---|
| **Environmental Durability:** | Humidity per MIL-STD-810H, Section 507.6 Temperature per MIL-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

- Common Wavelengths for Popular Fluorophores
- Excitation Filters and Emission Filters Available
- >93% Transmission
- >OD 6 Blocking, <3% from Edge of Bandwidth
- **Fluorescence Filter Sets** and **Pre-Mounted Fluorescence Filter Cube Sets** Also Available

Our TECHSPEC® Fluorescence Bandpass Filters perfectly match common fluorophores' absorption and emission characteristics in fluorescence imaging applications. Excitation and emission filters are available, featuring high transmissions in the passband (≥ 93% for VIS designs) and >OD 6 blocking outside of the passband. These filters are also ideal components in applications using spectroscopic fluorescence detection, including analytical chemistry and biomedical instruments such as DNA sequencers and polymerase chain reaction (qPCR) devices. Each filter features state-of-the-art hard-sputtered coatings and is mounted in a black anodized ring for easy system integration.

Fluorescence microscopy and spectroscopy applications typically use a combination of three filters for each color channel (detection of individual fluorophores), an excitation and an emission bandpass filter, as well as a dichroic filter (also dichroic beamsplitters, such as our **Fluorescence Dichroic Filters** and **High-Performance Fluorescence Dichroic Filters**). More information on fluorescence microscopy and an example beam path can be found in the AppNote **Fluorophores and Optical Filters for Fluorescence Microscopy**. In short, excitation filters “clean up” the excitation light used to excite the fluorophores in the sample. On the other hand, emission filters allow only the emitted fluorescence to pass through to the detector while effectively blocking the excitation light and different wavelengths, producing high-contrast images and superior image clarity.

Our fluorescence bandpass filters are engineered with cutting-edge technology and are designed to enhance signal-to-noise ratios, improve contrast, and deliver excellent performance in optical imaging applications. These filters are designed to be widely compatible with microscopes from Nikon, Olympus, and Zeiss, making them suitable for various imaging applications, including widefield, confocal, multiphoton, and other fluorescence microscopy modalities. Whether you are imaging fixed cells, live cells, or tissues, our filters are engineered to deliver consistent and reliable image quality. Additionally, these filters can be used for fluorescence detection in qPCR, flow cytometry, or multi-well plate readers in applications such as immunofluorescence or high-throughput screening in which fluorescent molecules or dyes detect specific molecular structures or DNA sequences.

TECHSPEC® Fluorescence Bandpass Filters are optimized for maximum transmission within a specific wavelength range. They effectively isolate fluorescence signals from background noise, enhancing sensitivity and enabling more accurate detection of fluorophores. Explore our range of filters today and unleash the full potential of your fluorescence microscopy setup.

# Technical Information

*All mounted TECHSPEC® Optical Filters have an arrow on the side of the mount that points to the filter-coated surface for quick reference. Filter oriented such that arrow points to filter coated surface S1. Anti-reflective (AR) coating is applied to S2.*

## Related Products

Manual Cage Filter Wheel

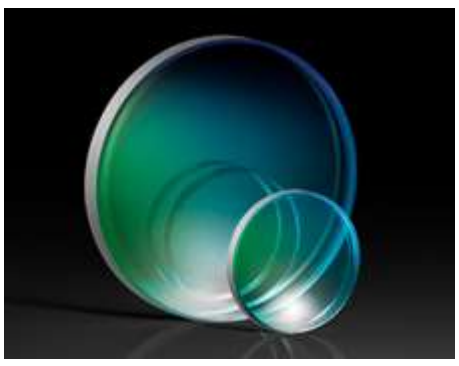
C, S, and T-Mount Circular Optic Mounts


Cotton-Tipped Swab Applicators

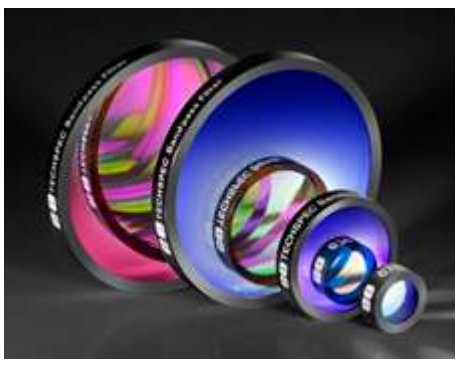
Multi-Band Fluorescence Bandpass Filters

## Frequently Purchased Together

#47-303 - 50mm Dia., Extended Hot Mirror
**£88.80**
Qty



#64-624 - 425nm 25mm Diameter, OD 2.0 Longpass Filter
**£120.00**
Qty



#65-192 - 394nm CWL, 50mm Dia., Hard Coated OD 4.0 10nm Bandpass Filter
**£568.00**
Qty

#84-723 - 600nm 50mm Diameter, OD 4.0 Shortpass Filter
**£468.00**
Qty

## Compatible Mounts

| | Title | Type | Compare | Stock Number | Price ☐ | Buy |
|---|---|---|---|---|---|---|
| MORE+  | 50.0mm Optic Dia., Optic Mount | Fixed | | #64-567 | £39.40 Request Quote | 2 In Stock 1 |
| MORE+  | 50.0mm Optic Dia., Optic Mount | Fixed | | #64-568 | £39.40 Request Quote | 7 In Stock 1 |
| MORE+  | 9.5 - 73.0mm Optic Dia., Three-Screw Adjustable Ring Mount | Fixed | | #36-605 | £66.40 Request Quote | 20+ In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., E-Series Kinematic Mount | Adjustable - Tip-Tilt | | #15-867 | £76.80 Request Quote | CONTACT US 1 |
| MORE+  | 10.0 - 60.0mm Optic Height, Metric Bar-Type Optic Holder | Fixed | | #55-530 | £86.40 Request Quote | CONTACT US 1 |
| MORE+  | 19.5 - 108.0mm Optic Dia., Three-Screw Adjustable Ring Mount | Fixed | | #03-670 | £91.20 Request Quote | 20+ In Stock 1 |

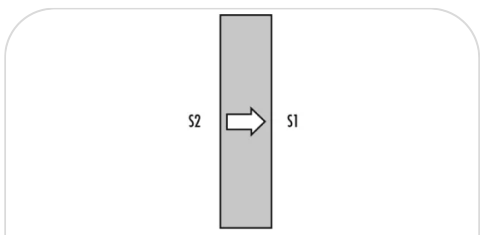
| | Title | Type | Compare | Stock Number | Price ☐ | Buy |
|---|---|---|---|---|---|---|
| MORE+  | 7.0 - 67.0 Optic Height, English Bar-Type Optic Holder | Fixed | | #03-669 | £92.80 Request Quote | 20+ In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Optical Cell Assembly | Fixed | | #36-465 CLEARANCE | £95.96 Request Quote | 2 In Stock 1 |
| MORE+  | 8.0 - 118.0 Optic Height, English Bar-Type Optic Holder | Fixed | | #03-666 | £96.00 Request Quote | 20+ In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Kinematic Mount, 2-Screws | Adjustable - Tip-Tilt | | #58-852 | £108.00 Request Quote | 20+ In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Kinematic Mount, 3-Screws | Adjustable - Tip-Tilt | | #58-855 | £125.60 Request Quote | 20+ In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Stainless Steel Kinematic Mount, 2-Screws | Adjustable - Tip-Tilt | | #26-816 | £196.80 Request Quote | 12 In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Stainless Steel Kinematic Mount, 3-Screws | Adjustable - Tip-Tilt | | #26-819 | £214.40 Request Quote | CONTACT US 1 |
| MORE+  | 50.0/50.8mm Optic Dia., X-Y Translating Optic Mount | Adjustable - Linear (XY) | | #62-957 | £246.40 Request Quote | 1 In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Kinematic Mirror Mount | Adjustable - Tip-Tilt | | #55-005 | £288.80 Request Quote | 6 In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Kinematic Mirror Mount with Micrometer | Adjustable - Tip-Tilt | | #56-326 | £309.60 Request Quote | CONTACT US 1 |
| MORE+  | 5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp | Fixed | | #16-078 | £328.00 Request Quote | CONTACT US 1 |
| MORE+  | 50.0/50.8mm Optic Dia., Precision Gimbal Mount | Adjustable - Gimbal | | #55-000 | £408.00 Request Quote | 7 In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount | Adjustable - Linear (XYZ) | | #62-960 | £484.00 Request Quote | 20+ In Stock 1 |
| MORE+  | 50.0/50.8mm Optic Dia., 5 Axes Optical Mount | Adjustable - Linear (XYZ) & Tip-Tilt | | #13-778 | £672.00 Request Quote | 10 In Stock 1 |

Check out our full selection of mounts **here**.

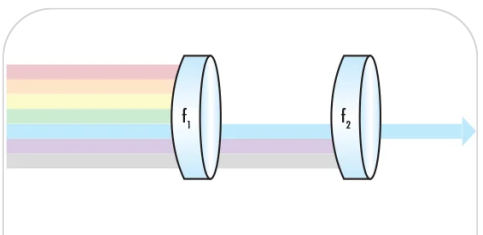
# Resources

**Media Type**

- ☐ Application Note
- ☐ Video




APPLICATION NOTE




APPLICATION NOTE

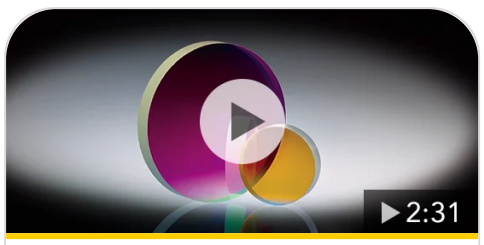

VIDEO

- [ ] Published Article
- [ ] FAQ
- [ ] Glossary
- [ ] Trending in Optics

The Importance of Optical Filter Orientation....

Custom Bandpass Filter using Shortpass an...

Optical Filters Review

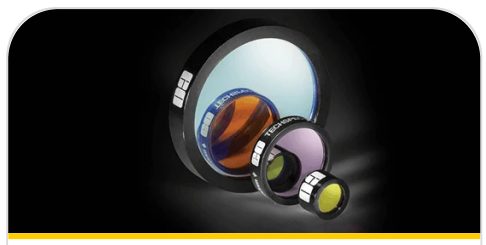



VIDEO

Optical Filter Coatings: Comparison of Traditional a...

PUBLISHED ARTICLE

Selecting Color Filter Glass for Life Science Applications



? FAQ

What type of material should I look for in a filter?

View More

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