

**TECHSPEC® 500nm CWL, 25mm Dia. Hard Coated OD 4.0 50nm Bandpass Filter**



Stock #84-783 **20+ In Stock**

[Additional Bandwidths](#)

⊖ 1 ⊕ €280.<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-5	€280,00 each
Qty 6-25	€224,00 each
Qty 26-49	€210,00 each
Need More?	<a href="#">Request Quote</a>

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

**General**

Bandpass Filter **Type:**

**Typical Applications:**  
BD Horizon V500, DiO, PKH67, Acridine Orange,  
ATTO 488, ratiometric pHluorin pH6

**Typical Light Sources:**  
475 and 488nm Laser; 520nm LED

## Physical & Mechanical Properties

**Diameter (mm):**  
25.00 +0.0/-0.1

**Clear Aperture CA (mm):**  
21.0

**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):**  
3.5 ±0.5

## Optical Properties

**Angle of Incidence (°):**  
0

**Bandwidth (nm):**  
45

**Optical Density OD (Average):**  
≥4.0

**Center Wavelength CWL (nm):**  
500.00

**Full Width-Half Max FWHM (nm):**  
50.00

**Substrate:**   
Optical Glass

**Minimum Transmission (%):**  
≥90

**Coating:**  
Hard Coated

**Surface Quality:**  
80-50

**Blocking Wavelength Range (nm):**  
200 - 1200

## Threading & Mounting

**Mount Thickness (mm):**  
5.0 ±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 241:**  
[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

- High Transmission, Deep Blocking
- Broad Bandwidths Ideal for Imaging Applications
- Available in VIS and IR Center Wavelengths
- [Hard Coated OD 4.0 10nm](#) and [25nm](#) Bandpass Filters Also Available

TECHSPEC® Hard Coated OD 4.0 50nm Bandpass Filters are ideal for imaging applications, including machine vision inspection, fluorescence microscopy, and a variety of biotech instrumentation. These bandpass filters eliminate unwanted background noise and enhance the signal-to-noise ratio within imaging applications. Unlike traditional filters, these hard coated filters are fabricated using only a single substrate. TECHSPEC® Hard Coated OD 4.0 50nm Bandpass Filters offer deeper blocking, higher transmission, and steeper slopes than traditional coated filters. Hard Coated OD 4.0 [10nm](#) and [25nm](#) are also available.

**Note:** These filters are optimized for high spectral performance rather than high Laser Induced Damage Thresholds (LIDT). A typical LIDT for these filters is 1 J/cm<sup>2</sup> @ 532nm, 10ns. Please [contact us](#) if you require a filter with a higher LIDT value.

## 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.

## Compatible Mounts

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