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TECHSPEC® 500nm CWL, 12.5mm Dia. Hard Coated OD 4.0 25nm Bandpass Filter



Stock **#86-642** **10 In Stock**

[Additional Bandwidths](#)

- 1 + €181⁰⁰

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Volume Pricing	
Qty 1-5	€181,00 each
Qty 6-25	€145,00 each
Qty 26-49	€135,75 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Bandpass Filter **Type:**

Typical Applications:
BD Horizon V500, DiO, PKH67, Acridine Orange,
ATTO488, ratiometric pHluorin pH5

Physical & Mechanical Properties

Diameter (mm):
12.50 +0.0/-0.1

Clear Aperture CA (mm):
8.5

Construction:
Mounted in Black Anodized Ring

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

Substrate Thickness (mm):
3.5 ±0.5

Optical Properties

Angle of Incidence (°):
0

Bandwidth (nm):
20

Optical Density OD (Average):
≥4.0

Center Wavelength CWL (nm):
500.00 ±3

Center Wavelength CWL Tolerance (nm):
±3

Full Width-Half Max FWHM (nm):
25.00 ±3

Full Width-Half Max FWHM Tolerance (nm):
±3

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 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 Life Science Instrumentation
- High Transmission, Deep Blocking
- Used to Prevent Photobleaching in Microscopy Applications
- Hard Coated OD 4.0 [5nm](#), [10nm](#) and [50nm](#) Bandpass Filters also Available

TECHSPEC® Hard Coated OD 4.0 25nm Bandpass Filters are designed to be a midrange alternative to broadband or narrowband filters. These filters are ideal for fluorescence microscopy or other life science applications that rely

on fluorescence detection such as flow cytometry or qPCR. TECHSPEC® Hard Coated OD 4.0 25nm Bandpass Filters can also be used to eliminate unwanted background noise while enhancing the signal-to-noise ratio in imaging or machine vision applications. The filters are designed to have a 0° angle of incidence and are mounted in a black anodized ring. Hard Coated OD 4.0 [5nm](#), [10nm](#), and [50nm](#) bandpass filters 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/cm² @ 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
