

TECHSPEC®

494nm CWL, 12.5mm Dia, 20nm Bandwidth, OD 6 Fluorescence Filter



Stock #84-080 **9 In Stock**

1 **MRP ₹28,653**

Price inclusive of all taxes

ADD TO CART

Volume Pricing	
Qty 1-5	₹28,653 each
Qty 6-25	₹22,903 each
Qty 26-49	₹21,490 each
Need More?	Request Quote

Product Downloads

- STEP:step
- Curve:pdf
- PDF Drawing:pdf
- IGES:igs
- eDrawing:easm
- EO Spec Sheet
- [Download All](#)

General

Type: Bandpass Filter	Compatible Fluorophore: SpectrumGreen™ Excitation
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Physical & Mechanical Properties

Diameter (mm): 12.50 +0.00/-0.10	Clear Aperture CA (mm): 8.69
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): 20.00
OD 6 Blocking Wavelength Range (nm): 300 - 473 & 518 - 680	Optical Density OD (Average): ≥6.0
Average Transmission (%): >93 over Bandwidth	Center Wavelength CWL (nm): 494.00
Full Width-Half Max FWHM (nm): 25.00	Substrate: Fused Silica (Corning 7980)

Coating:	Hard Coated	Surface Quality:	60-40
Transmission (%):	93.00	Blocking Wavelength Range (nm):	300 - 1150
Transmitted Wavefront, RMS:	$\lambda/4$ (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**

Country of Origin: United States

Imported By: Edmund Optics India Private Limited
267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038
Phone: +91-80-6845 0000

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 ($\geq 93\%$ 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



#33-323 - 512nm CWL, 12.5mm Dia, 25nm Bandwidth, OD 6 Fluorescence Filter
₹28,653

Qty



#33-332 - 575nm CWL, 12.5mm Dia, 27nm Bandwidth, OD 6 Fluorescence Filter
₹28,653

Qty



#33-335 - 648nm CWL, 12.5mm Dia, 14nm Bandwidth, OD 6 Fluorescence Filter
₹28,653

Qty






















































#33-909 - 620nm CWL, 12.5mm Dia, 56nm Bandwidth, OD 6 Fluorescence Filter
₹28,653

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
	12.5/12.7mm Optic Dia., SM05 Thin Mount, M4	Fixed		#13-789	₹1,967 Request Quote	20+ In Stock <input type="text" value="1"/>
	12.5/12.7mm Optic Dia., SM05 Thin Mount, 8-32	Fixed		#13-790	₹1,967 Request Quote	2 In Stock <input type="text" value="1"/>
	12.5/12.7mm Optic Dia., E-Series Kinematic Mount	Adjustable - Tip-Tilt		#15-865	₹4,388 Request Quote	CONTACT US <input type="text" value="1"/>
	12.5/12.7mm Optic Dia., L-Slot	Fixed		#36-416	₹5,953 Request	1 In Stock <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	Direct Mount				Quote	
MORE+ 	12.5/12.7mm Optic Dia., Side Flange Direct Mount	Fixed		#36-418	₹5,953 Request Quote	1 In Stock <input type="text" value="1"/> 
MORE+ 	2.0 - 35.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#03-668	₹6,357 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	9.5 - 73.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#36-605	₹8,374 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+ 	12.5/12.7mm Optic Dia., Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt		#58-850	₹9,383 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	12.5/12.7mm Optic Dia., L-Slot and Rotation Direct Mount	Adjustable - Rotary		#36-417	₹9,736 Request Quote	12 In Stock <input type="text" value="1"/> 
MORE+ 	12.5/12.7mm Optic Dia., Compact Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt		#34-720	₹10,190 Request Quote	14 In Stock <input type="text" value="1"/> 
MORE+ 	5.0 - 25.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-529	₹10,291 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	12.5/12.7mm Optic Dia., Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt		#58-853	₹10,493 Request Quote	14 In Stock <input type="text" value="1"/> 
MORE+ 	7.0 - 40.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-676	₹10,694 Request Quote	2 In Stock <input type="text" value="1"/> 
MORE+ 	10.0 - 60.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-530	₹10,896 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+ 	7.0 - 67.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-669	₹11,703 Request Quote	6 In Stock <input type="text" value="1"/> 
MORE+ 	12.5/12.7mm Optic Dia., Compact Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt		#34-721	₹11,805 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	8.0 - 118.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-666	₹12,107 Request Quote	10 In Stock <input type="text" value="1"/> 
MORE+ 	4.0 - 36.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-077	₹15,840 Request Quote	6 In Stock <input type="text" value="1"/> 
MORE+ 	12.5/12.7mm Optic Dia., Stainless Steel Kinematic Mount, 2-Screws	Adjustable - Tip-Tilt		#26-814	₹16,244 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	12.5/12.7mm Optic Dia., Stainless Steel Kinematic Mount, 3-Screws	Adjustable - Tip-Tilt		#26-817	₹18,362 Request Quote	20+ In Stock <input type="text" value="1"/> 

	Title	Type	Compare	Stock Number	Price	Buy
 	12.5/12.7mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-955	₹26,333 Request Quote	5 In Stock <input type="text" value="1"/> 
 	12.5/12.7mm Optic Dia., Top Adjust Kinematic Mount, Lead Screw	Adjustable - Tip-Tilt		#13-768	₹27,240 Request Quote	6 In Stock <input type="text" value="1"/> 
 	12.5/12.7mm Optic Dia., Top Adjust Kinematic Mount, Micrometer	Adjustable - Tip-Tilt		#13-769	₹29,158 Request Quote	5 In Stock <input type="text" value="1"/> 
 	5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	₹41,365 Request Quote	CONTACT US <input type="text" value="1"/> 
 	12.5/12.7mm Optic Dia., Precision Gimbal Mount	Adjustable - Gimbal		#84-640	₹42,475 Request Quote	7 In Stock <input type="text" value="1"/> 
 	12.5/12.7mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-958	₹43,282 Request Quote	5 In Stock <input type="text" value="1"/> 

Check out our full selection of mounts [here](#).

Resources

Media Type

- Application Note
- Video
- Published Article
- FAQ
- Glossary
- Trending in Optics

APPLICATION NOTE

The Importance of Optical Filter Orientation....

APPLICATION NOTE

Custom Bandpass Filter using Shortpass an...

VIDEO

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?

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