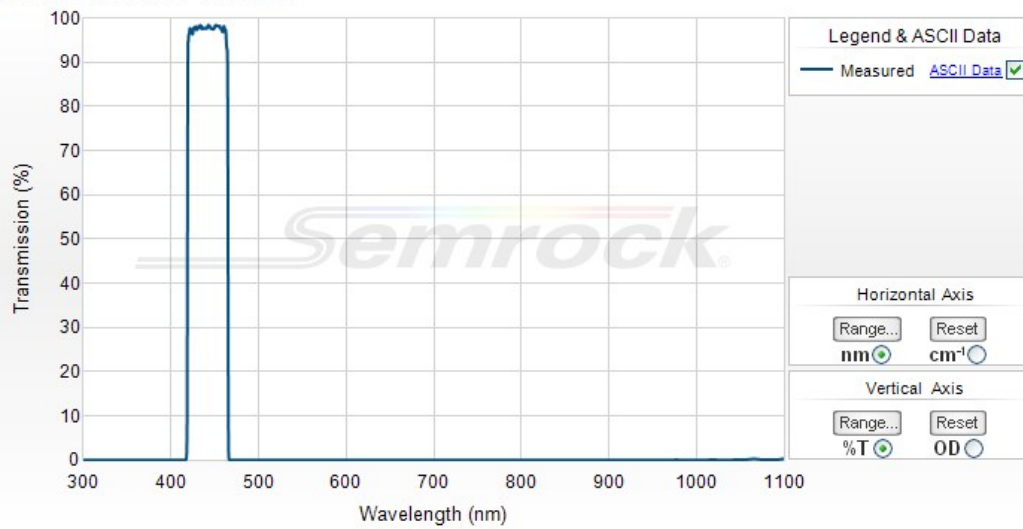


442/42 nm BrightLine® single-band bandpass filter

Part Number: FF01-442/42-25



Semrock, Inc

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Toll Free Phone: 866.736.7625 (866-SEMROCK)
(within US and Canada)

Your filter spectrum may differ slightly from the typical spectrum above, but is certified to meet the optical specifications noted below.



442/42 nm BrightLine® single-band bandpass filter

Individual fluorescence bandpass filters that have been optimized for use in a variety of fluorescence instruments. All thin-film, hard-coated construction for unsurpassed performance and reliability.

Part Number		Size	Price ¹	Stock Status
FF01-442/42-25	New Product	25 mm x 5.0 mm	\$355	In Stock
FF01-442/42-25-STR	New Product	25 mm threaded ring for Sutter Lambda filter wheel	\$375	Contact Us
FF01-442/42-32	New Product	32 mm x 5.0 mm	\$582	Contact Us
FF01-442/42-21.8-D	New Product	21.8 mm x 2.0 mm (unmounted)	\$355	Contact Us

Don't see a size you need? Contact us for custom sizing – available in less than a week (sizing fee applies).

¹) US domestic pricing only. If you are ordering from outside the US, please contact your nearest [regional distributor](#) for the correct list price.

Optical Specifications

Specification	Value
Transmission Band 1	T _{avg} > 93% 421 – 462.5 nm
Center Wavelength 1	441.5 nm
Guaranteed Minimum Bandwidth 1	41.5 nm
FWHM Bandwidth 1 (nominal)	46.2 nm
Blocking Band 1	OD _{avg} > 5 200 – 300 nm
Blocking Band 2	OD _{avg} > 6 300 – 412.2 nm
Blocking Band 3	OD > 3.5 468.3 nm
Blocking Band 4	OD _{avg} > 8 474 – 494.5 nm (Design specification - measurements are noise-floor limited)
Blocking Band 5	OD _{avg} > 8 532 – 554 nm (Design specification - measurements are noise-floor limited)
Blocking Band 6	OD _{avg} > 8 603 – 800 nm (Design specification - measurements are noise-floor limited)
Blocking Band 7	OD _{avg} > 6 472.2 – 850 nm
Blocking Band 8	OD _{avg} > 4 850 – 925 nm
Blocking Band 9	OD _{avg} > 2 925 – 1100 nm
Blocking Band 10	OD _{avg} > Z xxx – yyy nm
Blocking Band 11	OD _{avg} > Z xxx – yyy nm

General Filter Specifications

Specification	Value
Angle of Incidence	0 ± 5 degrees
Cone Half-angle	7 degrees

Optical Damage Rating: Testing has proven to show no signs of degradation when exposed to at least 6.0 W of power from an unfiltered

Optical Damage Rating xenon arc lamp over a 25 mm diameter (corresponding to 1.2 W/cm²) for over 500 hrs.

Effective Index 1.98

Physical Filter Specifications (applies to standard sized parts; contact us regarding other sizes)

Specification	Value
Transverse Dimensions (Diameter)	25 mm
Transverse Tolerance (mounted)	+ 0.0 / - 0.1 mm
Filter Thickness (Mounted)	5.0 mm
Filter Thickness Tolerance (Mounted)	± 0.1 mm
Clear Aperture	≥ 21 mm
Scratch-Dig	60-40
Substrate Thickness (unmounted)	2.0 mm
Substrate Thickness Tolerance (unmounted)	± 0.1 mm
Orientation	Arrow on ring indicates preferred direction of propagation of light