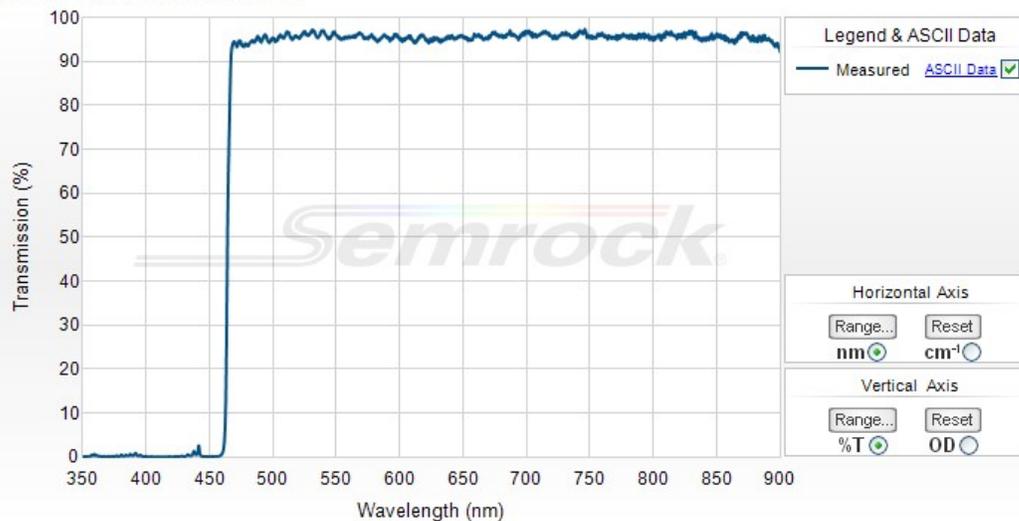


442 nm Laser BrightLine® single-edge laser-flat dichroic beamsplitter

Part Number: Di02-R442-25x36



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 nm Laser BrightLine® single-edge laser-flat dichroic beamsplitter

The perfect beamsplitters for the most popular lasers used in fluorescence imaging, including newer all-solid-state lasers. All beamsplitters in this category have exceptional reflectance at the laser wavelengths, improved ("laser-grade") flatness, and anti-reflection (AR) coatings to minimize imaging artifacts resulting from the coherent laser light.

Interested in an improved flatness version?

1λ P-V RWE on 1mm [Di03-R442-t1](#) now available

λ/5 P-V RWE on 3mm [Di03-R442-t3](#) now available

Part Number	Size	Price ¹	Stock Status
Di02-R442-25x36	25.2 mm x 35.6 mm x 1.1 mm (unmounted)	\$405	In Stock
Di02-R442-22x29	22.0 mm x 29.0 mm x 1.1 mm (unmounted)	\$405	2nd Day Ship

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
Reflection Band 1	Rabs > 94% 439 – 457.9 nm
Reflection Band 1 (p-pol)	Rabs > 90% 439 – 457.9 nm
Reflection Band 1 (s-pol)	Rabs > 98% 439 – 457.9 nm
Reflection Band 2	Ravg > 90% 350 – 439 nm
Edge Wavelength 1	462 nm
Transmission Band 1	Tavg > 93% 466.1 – 900 nm
Laser Wavelengths 1	440 +3/-1 nm, 442.0 nm & 457.9 nm

General Filter Specifications

Specification	Value
Angle of Incidence	45 degrees with a shift of 0.35%/degree (40 – 50 degrees)
Cone Half-angle	0.5 degrees
Optical Damage Rating	1 J/cm ² @ 532 nm (10 ns pulse width)
Flatness	Laser Flat
Steepness	Steep
Effective Index	1.77

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

Specification	Value
Transverse Dimensions (L x W)	25.2 mm x 35.6 mm
Transverse Tolerance	± 0.1 mm
Filter Thickness (unmounted)	1.05 mm

Filter Thickness Tolerance (unmounted)	± 0.05 mm
Clear Aperture	≥ 80% (elliptical)
Scratch-Dig	60-40
Substrate Type	Fused Silica
Substrate Thickness (unmounted)	1.05 mm
Substrate Thickness Tolerance (unmounted)	± 0.05 mm
Orientation	Reflective surface marked with part number - Orient in direction of incoming light