

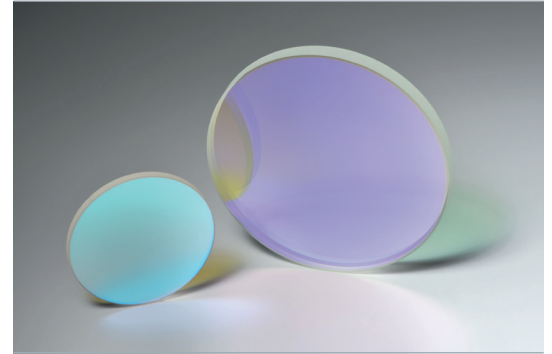
**MATERION**

// BALZERS OPTICS

Laser-Mirrors for harmonic Wavelength Separation

Dichroic Mirrors for 2nd and 3rd harmonic Wavelengths

For separation of the 2nd or 3rd harmonic wavelength, Materion Balzers Optics provides dichroic mirrors where one wavelength is transmitted while the other one is reflected. Similar to beam-splitters, dichroic mirrors for harmonic separation are basically made for one laser fundamental wavelength. Typically, reflectance is > 99.5%, while transmittance is > 95%. Harmonic separation mirrors are available for 0° and 45° application. Standard dimensions are ½" and 1". Other customized dimensions are available upon request.

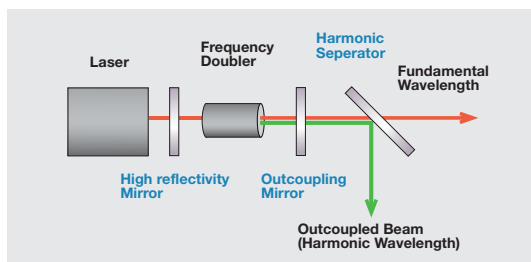


Benefits

- Various laser lines available – see overview
- Standard reflectance > 99.5% for s- or p-pol
- Standard transmittance: > 95% for s- or p-pol
- High laser damage threshold
- Angle of incidence: 0° and 45°
- Low losses and scattering as RMS < 2 Å
- Excellent long-term stability

Applications

- Ultra-short pulse laser systems
- Laser material processing
- Beam delivery systems



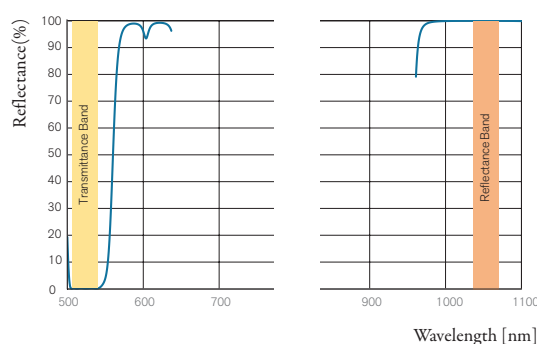
Technical Data

Transmittance	> 95% for any polarization (customized upon request)
Reflectance	> 99.5% for any polarization
Angle of Incidence	0° or 45°
Flatness	L/10
Surface Quality	10-5
Dimensions	12.7 (0/-0.1) mm x 6.35 (±0.1) mm 25.4 (0/-0.1) mm x 6.35 (±0.1) mm (others upon request)
Substrate	UV fused silica
Parallelism	< 5 arcmin

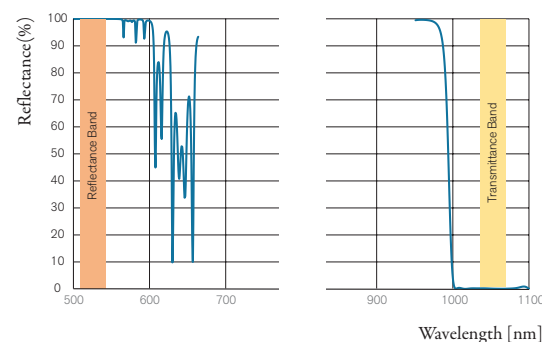
Overview

	T > 95%	vs.	R > 99.5%
Λ (nm)	390-410		780-820
Λ (nm)	500-530		1000-1070
Λ (nm)	520-540		1040-1080
Λ (nm)	260-275		520-540

Dichroic Laser Line Mirror for Harmonic Separation
1030 vs. 515nm ; AOI 45°; s-pol



Dichroic Laser Line Mirror for Harmonic Separation
515nm vs. 1030nm ; AOI 45°; s-pol



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