

Laser Polarized Dichroic Mirror

Laser Polarized Dichroic Mirror for Projection Display

Materion Balzers Optics' laser polarized dichroic mirror have superior performance. The polarization of light affects the focus of laser beams, and can be important to prevent unwanted back reflections. Materion Balzers Optics' laser polarized dichroic mirrors have high transmission in P- polarized light and high reflection in S-polarized light, or have high transmission in S-polarized light and high reflection in P-polarized light which help customer to maximize the total light throughput. The coating design have been specific optimization for P and S polarized light emitted by different lasers, and can be applied to RGB pure laser systems, laser phosphor illumination systems or polarization light source systems.



Benefits

- High reflection and high transmission in the Red, Green, Blue laser respective wavelength ranges.
- Narrow cut-on/cut-off spectral tolerances and excellent spectral uniformity.
- Excellent optical and mechanical stability contributed by the plasma sputtering deposition process (20 –120° temperature shift < 1nm, 48 h humidity shift < 1nm).
- High degree of flexibility for customization spectrum design

Applications

- RGB pure laser system
- Laser phosphor illumination system
- Polarized light source system
- LCOS projection system
- Laser interferometer

Technical Data

Spectral performance

AOI: 45°

Polarized: Optimized for P/S polarized light

Reflection/Transmission band

Blue typ. 450...475 nm

Green typ. 515...542nm

Red typ. 630...652 nm

(Adapted and optimized upon customer's request)

Substrate material

Heat resistant borosilicate glass, other substrate materials depends on request

Dimensions

According to customer's request

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Subject to technical change without notices

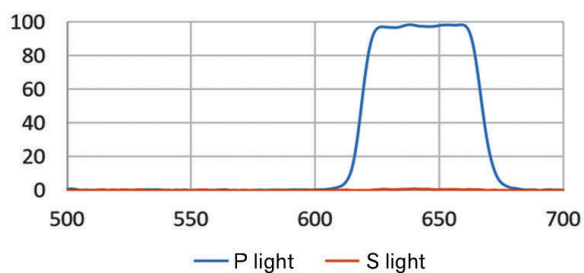


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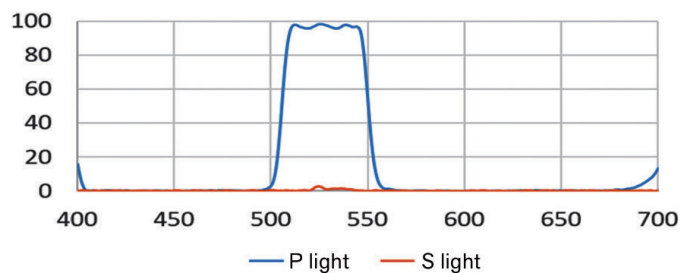
Typical Spectral Characteristics

Polarized Red 45°



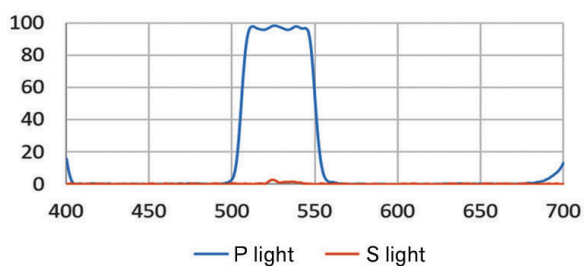
Red Polarized Dichroic Mirror

Polarized Green 45°



Green Polarized Dichroic Mirror

Polarized Blue 45°



Blue Polarized Dichroic Mirror

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