

# Dichroic Laser Beam Combiners

## Low absorption filters for laser beam combining

High efficiency by combining of laser source is a key feature of the dichroic laser beam combiners made by Materion Balzers Optics. They are produced by hard sputtering coating technology. Therefore, lowest absorption values can be offered. The dichroic laser beam combines are made for an angle of 45° of incidence. Dimensions and wavelengths can be customized. Steep edges between transmission and reflection band can be guaranteed.



## Benefits

- Low absorption value
- Customized design
- Hard sputtered coating technology
- Steep edges between transmission and reflection band
- Designs made for s- or p-pol and thus also unpolarizes light
- Wavelength combiners for high power laser sources

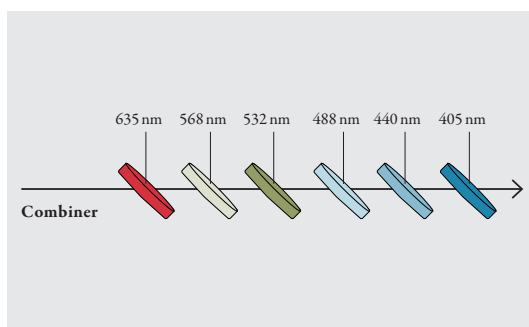
## Applications

- Multi-Laser source combining
- Diode-Laser combining
- Laser microscopy
- Laser material processing

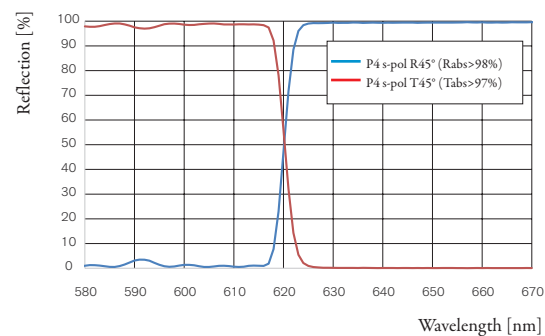
## Technical Data

<b>Wavelength range</b>	300 – 2000 nm (cut-off wavelength customized)
<b>Reflectance</b>	> 98 %
<b>Transmittance</b>	> 97 % (depending on requirements)
<b>Angle of incidence</b>	Standard 45° (others on request)
<b>Substrat material</b>	Quarz; BK7; low-auto-fluorescence substrates
<b>Dimension</b>	customized
<b>Surface defects</b>	5/3 x 0.1 (clear aperture = Ø 25.4 mm)
<b>Temperatur stability</b>	-40° C ... + 400° C

## Wavelength Combiners (schematic design)



## Beam Combiner 635nm



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