

Additive and Subtractive Color Filters

High Performance Dichroic Color Filters

Dichroic additive and subtractive color filters are dielectric interference filters which transmit certain regions of the visible spectrum and reflect others with a high degree of efficiency. Compared to color glass or gelatine filters, dichroic filters are virtually absorption free, highly transmitting and with optimum color saturation. Filters are mechanically and chemically resistant without fading and aging.



Benefits

- Sharp spectral separation between transmission and reflection with high transmission and reflection values
- Very high color purity
- Ultimate color saturation
- High brightness
- Accurate and reproducible colors
- High temperature resistance
- Filter characteristics independent of glass thickness
- Robust, easy to clean

Technical Data

Colors

3 additive and 3 subtractive colors
(customized colors on request)

Angles of incidence

0°

Substrate material

Heat resistant borosilicate glass

Temperature stability

up to 300 °C

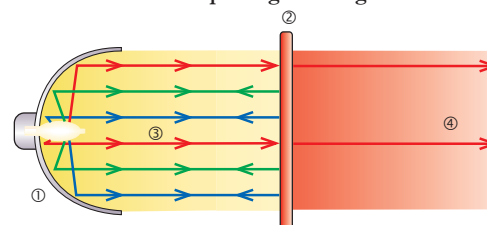
Standard dimension

160 · 110 · 1.1 mm

Applications

- Optical sensors
- Readers, Barcode scanners
- Color printers, color enlargers
- Optical measuring instruments, Spectroscopy
- High End luminaires
- Entertainment lighting
- Color TV cameras
- Fotofinishing
- Dental Polymerisation
- Signalisation

Schematic of color splitting showing color filter



- ① Lamp with cold light reflector
- ② Color filter
- ③ Visible light
- ④ Transmitted color



MATERION

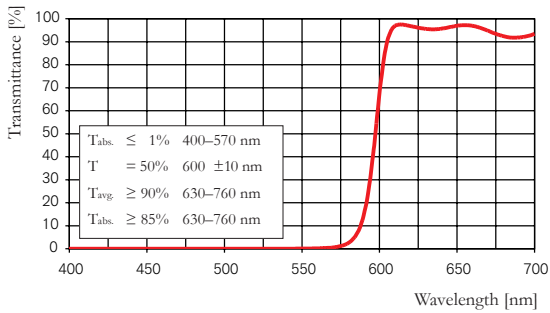
// BALZERS OPTICS

Additive color filters

Subtractive color filters

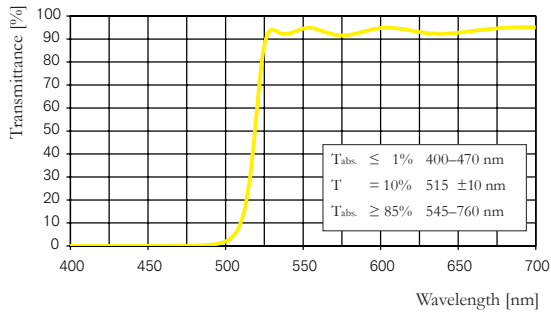
DT-RED STD

AOI = 0°



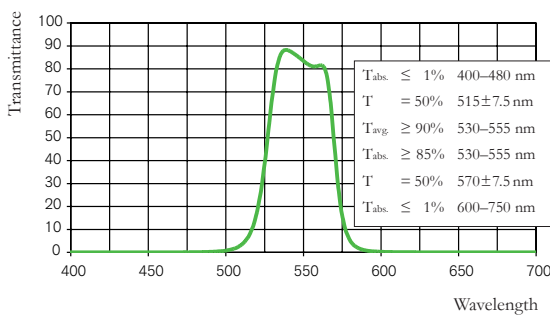
DT-YELLOW STD

AOI = 0°



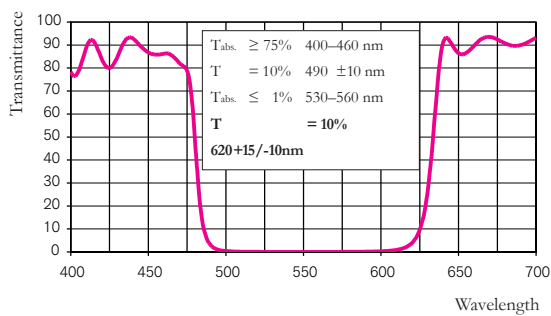
DT-GREEN STD

AOI = 0°



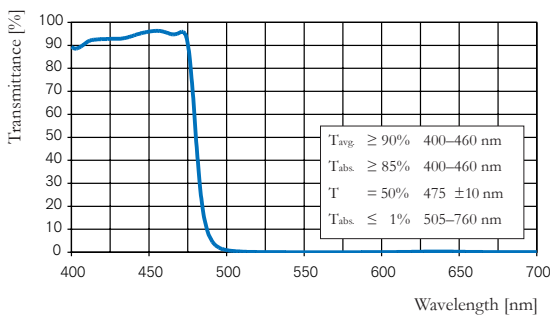
DT-MAGENTA STD

AOI = 0°



DT-BLUE STD

AOI = 0°



DT-CYAN STD

AOI = 0°

