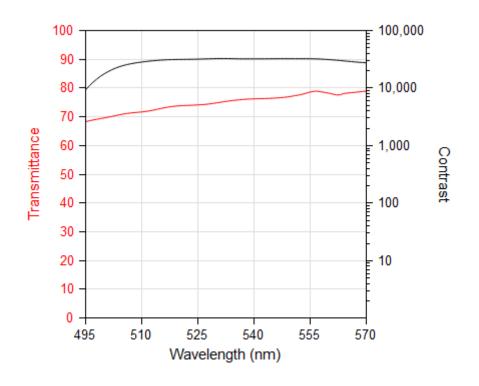
colorPol[®] polarizers

colorPol® VIS 500 BC4 T1

Developed to match special needs of visible applications between 500 nm and 550 nm. This polarizer utilizes dichroism of silver nanoparticles in glass to achieve superior contrast and durability.

Custom shapes, sizes and patterned structures are possible due to larger manufactured substrates. For assistance please contact your CODIXX Sales Engineer or one of the local distributors with your custom requirements.





Key Benefits

- Thickness 90 µm
- Transmittance > 72 % (up to 83 %) with antireflection (AR) coating
- Contrast ratio greater than 10,000 : 1
- · Ideal for applications using the visible wavelength ranges
- Customization
- Highly durable



colorPol[®] polarizers

Spectral rangeVISWavelength range with contrast > 10,000 : 1 (1)500 to 550 nmTransmittance uncoated with AR-coating> 67 % up to 78 % > 72 % up to 83 %Filter thickness $90 \pm 25 \ \mu m$ Acceptance angle (coating reference for 0°) $\pm 20^{\circ}$ Accuracy of polarization axis to edge< 0.5°Usual surface quality (MIL-O-13830A: Scratch / Dig) (2) $40 / 20$ Operating temperature-50 to $\pm 400 \ ^{\circ}$ CTransmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm< 3 λ Recommended safe operation limit Laser damage threshold Continuous block Continuous pass Pulse peak power Equivalent pulse power density10 W/cm² 25 W/cm² 12 MW/cm² 12 MW/cm²		
Transmittance uncoated with AR-coating> 67 % up to 78 % > 72 % up to 83 %Filter thickness $90 \pm 25 \ \mu m$ Acceptance angle (coating reference for 0°) $\pm 20^{\circ}$ Accuracy of polarization axis to edge< 0.5°	Spectral range	VIS
with AR-coating> 72 % up to 83 %Filter thickness $90 \pm 25 \ \mu m$ Acceptance angle (coating reference for 0°) $\pm 20^{\circ}$ Accuracy of polarization axis to edge $< 0.5^{\circ}$ Usual surface quality (MIL-O-13830A: Scratch / Dig) ⁽²⁾ $40 / 20$ Operating temperature $-50 \ to \pm 400 \ ^{\circ}C$ Transmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm $< 3 \ \lambda$ Recommended safe operation limit Laser damage threshold Continuous block Continuous pass Pulse peak power Equivalent pulse power density $10 \ W/cm^2$ $12 \ MW/cm^2$ $1 \ \mu J/cm^2$	Wavelength range with contrast > $10,000 : 1^{(1)}$	500 to 550 nm
Acceptance angle (coating reference for 0°) $\pm 20^{\circ}$ Accuracy of polarization axis to edge< 0.5°		•
Accuracy of polarization axis to edge< 0.5°Usual surface quality (MIL-O-13830A: Scratch / Dig) $^{(2)}$ 40 / 20Operating temperature-50 to +400 °CTransmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm< 3 λ Recommended safe operation limit Laser damage threshold Continuous block Continuous pass Pulse peak power Equivalent pulse power density10 W/cm² 12 MW/cm² 1 µJ/cm²	Filter thickness	90 ± 25 μm
Usual surface quality (MIL-O-13830A: Scratch / Dig) $^{(2)}$ 40 / 20Operating temperature-50 to +400 °CTransmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm< 3 λ Recommended safe operation limit Laser damage threshold Continuous block Continuous pass Pulse peak power Equivalent pulse power density10 W/cm² 12 MW/cm² 1 μ J/cm²	Acceptance angle (coating reference for 0°)	± 20°
Operating temperature-50 to +400 °CTransmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm< 3 λ	Accuracy of polarization axis to edge	< 0.5°
Transmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm< 3 λRecommended safe operation limit Laser damage threshold Continuous block10 W/cm² 25 W/cm² 12 MW/cm² 12 MW/cm²Pulse peak power Equivalent pulse power density1 μJ/cm²	Usual surface quality (MIL-O-13830A: Scratch / Dig) (2)	40 / 20
over an inspection area of Ø10 mm< 3 λRecommended safe operation limit Laser damage threshold Continuous block10 W/cm²Continuous pass25 W/cm²Pulse peak power12 MW/cm²Equivalent pulse power density1 μJ/cm²	Operating temperature	-50 to +400 °C
Laser damage threshold10 W/cm²Continuous block10 W/cm²Continuous pass25 W/cm²Pulse peak power12 MW/cm²Equivalent pulse power density1 µJ/cm²		< 3 λ
⁽²⁾ other specifications available on request	Laser damage threshold Continuous block Continuous pass Pulse peak power Equivalent pulse power density	25 W/cm ² 12 MW/cm ²



This document is for information purposes only. CODIXX AG reserves the right to change technical information without notice.



www.codixx.de • colorPol@codixx.de • +49 39203 9630 Steinfeldstr. 3, 39179 Barleben, Germany