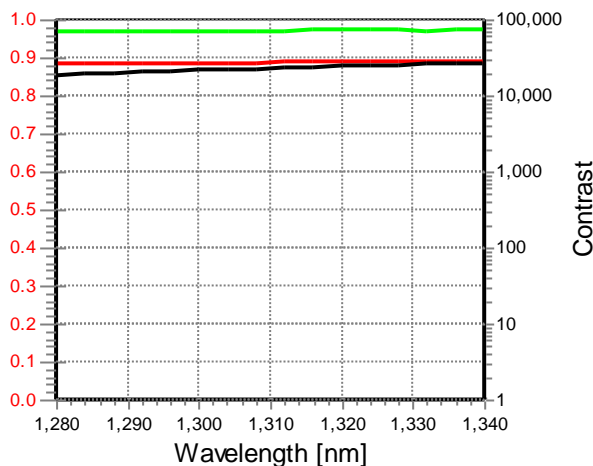


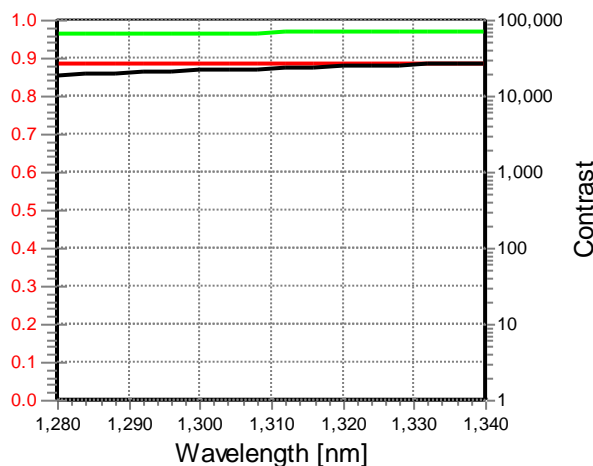
## colorPol® IR 1310N BC4 T2 HT

This narrowband polarizer was developed to match special needs of the popular laser wavelength 1310nm and covers  $1310 \pm 30$  nm. colorPol® polarizers utilize 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.



Typical contrast (black) and transmittance (uncoated red, with AR-coating C1310 green) for unlaminated parts



Typical contrast (black) and transmittance (uncoated red, with AR-coating C1310 green) for laminated parts

### Key Benefits

- Transmittance typically greater than 97 % with antireflection (AR) coating
- Contrast ratio greater than 10,000 : 1
- Ideal for applications using lasers with center wavelength at 1310 nm
- Customization
- Highly durable

### Applications

- Free space isolators operating at 1310 nm
- Optical communication
- Optical switches
- NIR spectroscopy
- Polarization interferometry
- Signal-to-Noise-Ratio monitoring
- Polarization analysis, monitoring and control
- Polarization mode dispersion monitoring and measurement

Specifications colorPol® IR 1310N BC4 T2 HT

	unlaminated	laminated
Spectral range	NIR	
Wavelength range with contrast > 10,000 : 1 <sup>(1)</sup>	1310 ± 30 nm	
Transmittance uncoated with AR-coating C1310 with 1 side AR-coating CS1310	> 88 % > 96 % > 92 %	> 87 % > 95 % > 91 %
Filter thickness <sup>(2)</sup>	200 ± 50 µm	1.7 ± 0.2 mm <sup>(3)</sup> 2.0 ± 0.2 mm <sup>(4)</sup>
Acceptance angle (coating reference for 0°)	± 20°	
Accuracy of polarization axis to edge	< 0.5°	
Usual surface quality (MIL-O-13830A: Scratch / Dig) <sup>(5)</sup>	40 / 20	
Operating temperature	-50 to +400 °C	-20 to +120 °C
Transmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm	< 3 λ	< λ/4 <sup>(4)</sup>
Recommended safe operation limit Laser damage threshold Continuous block Continuous pass Pulse peak power Equivalent pulse power density	10 W/cm <sup>2</sup> 25 W/cm <sup>2</sup> 12 MW/cm <sup>2</sup> 1 µJ/cm <sup>2</sup>	1 W/cm <sup>2</sup> 5 W/cm <sup>2</sup> 1 MW/cm <sup>2</sup> 100 nJ/cm <sup>2</sup>

<sup>(1)</sup> contrast: ratio of parallel to perpendicular transmittance  
<sup>(2)</sup> other thicknesses on request  
<sup>(3)</sup> laminated

<sup>(4)</sup> laminated, ground and polished  
<sup>(5)</sup> other specifications available on request

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