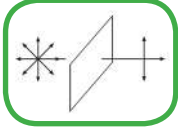
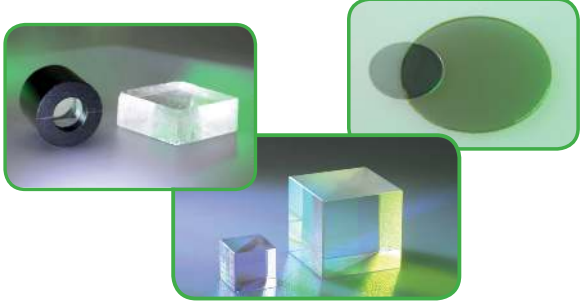
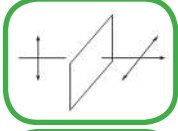

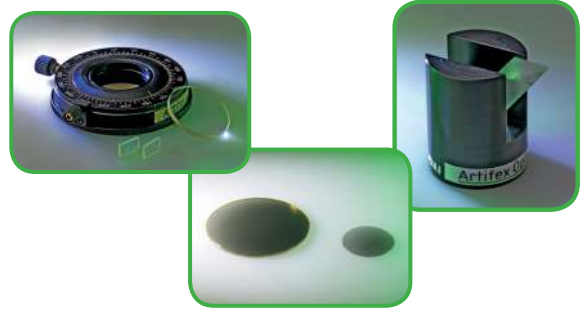
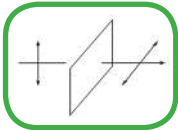

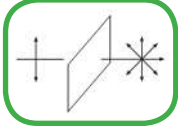
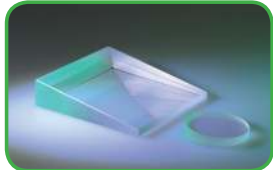
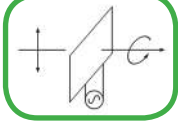



Polarization Optics

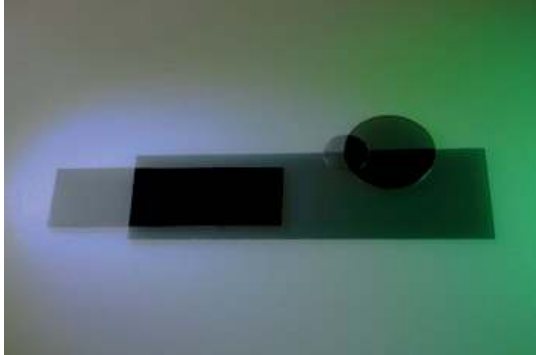


Artifex Engineering offers a wide range of polarizers and polarization optics. Our standard materials selection covers applications from 200 nm (UV) to 7000 nm (MIR). Thus, choosing the right polarization optic for your application can be a bewildering task.

Our experienced staff is only too pleased to assist you with the decision process.

<p>Polarizers:</p> 	<ul style="list-style-type: none"> • Crystal: Glan, Wollaston, Rochon, etc. • Glass: PBS cube, PBS plate, Brewster Polarizer • Sheet: absorptive, reflective (wire grid) 	
<p>Retarders:</p>  	<ul style="list-style-type: none"> • Crystal waveplates: zero order, true zero order, free standing or on annular frames • Sheet waveplates: achromatic • Fresnel Rhombs 	
<p>Rotators:</p> 	<ul style="list-style-type: none"> • Quartz Crystals 	
<p>Depolarizers:</p> 	<ul style="list-style-type: none"> • Lyot: polychromatic • Wedge: monochromatic 	
<p>Pockels Cells:</p> 	<ul style="list-style-type: none"> • BBO • KD*P • LiNbO₃ 	

Polymer Sheet Polarizers



Highlights:

UV and IR wavelength ranges

High polarization contrast

Cost effective

Our Offer in Detail:

The dichroic and wire grid polarizers from Artifex Engineering are manufactured using high quality polymers covering various wavelength ranges. We offer these polarizers as naked sheets with or without adhesive or as a sandwich construction laminated between extremely flat glass windows to achieve sharp imaging results. The high extinction ratio ensures high contrast; the constant high transmission level gives good colour rendition. Black and white!

The native material is manufactured in large sheets. We will provide any shape or size via laser cutting from the sheets with a dimensional tolerance of $\pm 0.25\text{mm}$. Polarizers with adhesive withstand up to 60°C , without adhesive up to 80°C .

Applications include biotechnology and medicine, machine vision, display and consumer products. Whatever your application: the high polarization and low distortion of these optics is impressive.

Selection Table:

Type:	Wavelength Range ¹ [nm]	Thickness [μm]	Adhesive [yes/no]	Imaging [yes/no]	Comments
IR1750	600-1750	400	(yes) / no	yes	Real IR! High optical quality
NIR1100	400-1100	127	(yes) / no	no	Some scatter, designed for sensors and LEDs
WG1100	400-1100	80	no	yes	Wire grid: non absorbing polarizing beamsplitter
VIS950	415-1600	500	no	yes	Extremely broadband
VIS850	420-850	770	(yes) / no	yes	broadband VIS
VIS800	415-800	440	yes / no	yes	Very economical
VIS760	420-760	190	yes / no		Replaces Polaroid 38
VIS700	430-700	190	yes / no		High transmission, high contrast
VIS675	415-675	190	yes		Very high transmission
VIS645	420-645	240	yes		Very robust to temperature and bleaching
UV770	325-770	190	(yes) / no		UV!

1) Contrast > 500 or 10% of maximum and $T_p > 50\%$

2) Graphical data overleaf

Your problem is our challenge - flexibility is our standard:

We will gladly adapt the size of the optic or provide mounts to suit your application. Let us know your requirements.