Laser Protective Eyewears and Lasershields

The protective eyewears and the lasershields are produced from polymer optical glasses and have CE certification as well as USA complience. We use 12 polymer optical glasses totally (**ARGON, HeNe543, VAPOR, HeNe633, ALEXANDRITE, YLF, FIBER, YAG, HOYLF, YSGG, HeNeIR, CO2**) to cover all the laser lines in the wavelength range between 190nm and 11µm.

For the very high mechanical stability and the wavefront precision of the laser beams one can use silica based inorganic mineral glasses (colour/filter glasses). There are different colour glasses, see www.oxapa.com, but the most suitable glasses for high power laser applications are **C3C21** (blocking of fiber lasers and fundamental (IR) harmonics of lasers based on doped YAG, KYW, KGW, YLF, $YAlO_3$, $GdVO_4$, YVO_4 glasses, wavelength range 700-1450nm), and **KC10** (blocking of all higher order harmonics of the above mentioned lasers, wavelength range 190-580nm). The colour glasses **C3C21** and **KC10** are partially transparent for human eye as well as for common pilot diode- or He-Ne-lasers (600-700nm). For blocking of the CO_2-lasers in the wavelength range 9µm-11µm one can use **Borosilicate** glass.

prices (EUR / pc) for standard polished lasershields and protective eyewears

	lasershields size in mm		
mineral glasses	**100x200x3**	**100x200x7**	**eyewear**
KC10	-	350	-
C3C21	-	416	-
Borosilicate	-	166	-
polymer glasses			
ARGON	40	-	76
HeNe543	40	-	-
VAPOR	46	-	120
HeNe633	40	-	-
ALEXANDRITE	46	-	120
YLF	56	-	130
FIBER	56	-	136
YAG	64	-	136
HOYLF	70	-	130
YSGG	56	-	136
HeNeIR	-	-	290
CO2	40	-	80

protective eyewear

lasershields

other glasses and sizes are possible by request

The polymer optical glasses and the mineral glasses used for production of laser protective eyewears and lasershields are systematized in the table below by the optical density (OD) for the wavelengths between 190nm and 11µm. As high the optical density is, as stronger the glass blocks the laser line. The glasses overlap all laser lines in the given wavelength range. They are transparent (at least partially) in the visible range for visual controlling by human eye.