



Eye and Face Protection Explained

Protect your eyes

One of the most common personal industrial injuries is damage to the eyes, not only to those who are operating machinery and equipment but also to those who are walking around and passing a hazardous operation.

These injuries can be avoided by the wearing of appropriate eye and face protection, a wide selection of which is available from your Eurosafe supply partner.

The Law

Under Regulation 4 of The Personal Protective Equipment at Work Regulations 1992 employers are required by law to provide employees with suitable personal protective equipment when they may be exposed to risks to their health and safety.

The wearing of eye protection in hazardous areas is a requirement of section 4 of the regulations.

Selecting the Equipment

When selecting eye protection careful consideration should be given not only to the potential hazard to be protected against but also to the compatibility of the eye protection if it is worn with other items of PPE, such as respirators or hearing protection.

Typical Hazards

Sometimes your employee may be exposed to impact and chemical hazards that put not only his eyes at risk but may also affect his face, then selection of a Full Face Visor may be the best choice. Full Face visors have the benefit of not only protecting a large area but with all around ventilation they generally remain mist free.



When an employee is exposed to the risk of injury from impact when operating equipment, which will create flying objects, such as grinding and cutting, or even hammering then the speed of any object should be considered when making your selection. It may be that the speed of an object is such that the wearing of Goggles or a Full Face visor is the only choice as spectacles could be dislodged in the event of an impact.

When working with chemicals Full Face visors with chin guards offer the best protection against splash however for protection against vapours and gases then goggles with appropriate ventilation systems should be selected.

The Standard

EN166 is the standard to which all eye protection should be manufactured and within this standard there are a number of considerations shown as markings on the equipment and on the instructions for use leaflet supplied with your eye protection, they include;

Optical Class

Mechanical Strength

Field of Use

Optional Requirements





All About the Markings

EN166	Frame	Lens
Optical Class		
Refractive Tolerance + 0.06 dio		1
Refractive Tolerance + 0.12 dio		2
Refractive Tolerance + 0.12/-0.25 dio		3
Mechanical Strength		
Increased Robustness		S
Low Energy Impact (45m/s)	F	F
Medium Energy Impact (120m/s)	B	B
High Energy Impact (190m/s)	A	A

EN166	Frame	Lens
Field of Use		
Liquids (chemical)	3	
Large Dust Particles	4	
Gas/Fine Dust Particles	5	
Short Circuit Electric Arc	8	
Molten Metals/Hot Solids	9	9
Optional Requirements		
Resistance to misting		N
Resistance to Scratching		K

Example of lens marking according to EN 166

2-1,2	W	I	F
scale number of filters (optional)	manufacturer's identification code	optical class	symbol of mechanical strength (optional)
		Symbol of optical class optical class 1 = best class optical class 2 = medium quality optical class 3* = low quality	symbol of mechanical strength no symbol minimum robustness S increased robustness F low energy impact (45 m/s) B medium energy impact (120 m/s) A high energy impact (190 m/s)
*not for continuous use			
9		K	N
symbol of non adherence of molten metal and resistance to penetration of hot solids (optional)		symbol of resistance to surface damage by fine particles (optional)	symbol of resistance to fogging (optional)
			CE
			symbol of conformity to CE directive 89/686 EEC

Example of Frame marking according to EN 166

W	166	34	B
manufacturer's identification code	number of EN standard	field(s) of use (optional)	symbol of resistance to high speed particles (optional)
		symbol of field(s) of use No symbol: basic use 3 liquids 4 large dust particles 5 gas and fine dust particles 8 short circuit electric arc 9 molten metals and hot solids	symbol of resistance to high speed particles no symbol: increased robustness F low energy impact (49 m/s) B medium energy impact (120 m/s) A high energy impact (190 m/s)
	DIN	CE	D196
	DIN-tested sign (optional)	symbol of conformity to EC directive 89/686 EEC	certification mark, number of certified body



Should you require help in finding your way around the selection process and the standards then contact your Eurosafe supply partner, who will assist in your selection.

Prescription Safety Spectacles

For those employees who already wear prescription spectacles and who are operating machinery or carrying out tasks which expose them to risk of injury to their eyes then it will be necessary under regulation 4 of the Personal Protective Equipment Regulations to provide them with suitable eye protection. This protection can be a visor, goggles, cover spectacles all to be worn over their own spectacles or prescription safety spectacles.

Where you elect to provide your employee with prescription safety spectacles then your Eurosafe supply partner is ideally placed to assist.

The first step in setting up your prescription safety eyewear programme is to contact your Eurosafe supply partner who will discuss with you your requirements and legal obligations. He will assist you with your selection of frame and lens material and describe the alternative services available to provide sight tests and dispensing.

When numbers allow, you have the choice of appointing an optician who carries out his professional duties in your own works, or for lesser numbers your employees may visit an optician of your choice, allowing you to fix the variable cost of eye test and dispensing. Alternatively they can visit their own optician, however this method does not allow you the same cost control.



Non Safety Occupational Prescription Spectacles

In addition to the provision of safety eyewear to protect against impact and other hazards the law states that operators of VDU equipment should be provided with spectacles suitable for the intermediate distance involved in the use of display screens.

Using the same administration system as you use for your Prescription Safety Spectacles your Eurosafe supply partner can provide a range of stylish occupational spectacles for considerably less than the probable costs you are currently paying where your employees have selected high priced designer frames.

