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# Our eyewear protection guide.

[www.sitexindustrial.com](http://www.sitexindustrial.com)



# Our eyewear protection guide.

## Answering common questions in a handy guide.



Our Visitor™ safety eyewear.



More information available at [sales@sitexindustrial.com](mailto:sales@sitexindustrial.com)



Our selection guides to respiratory protection, head protection, hand and arm protection, work at height, hearing protection, workwear and clothing and footwear.



Eyewear standards and regulations.

### Introduction

While it may seem obvious the first thing to consider when selecting eyewear is to identify the hazard you need to protect against. It is always a preferred solution to remove the hazard from the workplace but this is often not possible. Hazards can be broken down into simple types but quite often there may be a combination of hazards present, for example a welder may need protection from UV when welding and also from dust and high speed particles when grinding back.

A full risk assessment should be carried out by suitably qualified persons and this quick guide is not intended to replace this. A simple breakdown of risk types is outlined below but could include a combination of risk types making choices more complex.

### Types of hazards - the basics

**Mechanical Risks** generally occur with machining, use of power or hand tools or in proximity to any process likely to generate particles. The velocity, size and temperature of the particles needs to be considered as safety glasses may be suitable for low energy particles but unsuitable for high energy particles where a visor may be preferred.

**Optical Radiation** covers all types of radiation that can affect the eyes. This may be as simple as the UV radiation in sunlight but may also include invisible IR radiation, lasers, visible light, welding arcs, etc. Visible light only covers a very small part of the spectrum which means damage to the eyes may not be noticed until it is too late.

**Thermal Risks** refer to operations where there is a risk from metal splashes, hot particles, liquids or intense heat radiation.

**Chemical Risks** are fairly self explanatory but include dust, aerosols, liquids, gas and vapours. As well as protecting from the obvious splashes when handling chemicals, this also includes particles too small to be visible to the naked eye.

There is also a danger that particles may pass through the gap between the glasses and face in which case goggles may be a better option.

**Goggles** can generally withstand **Medium Energy** impacts up to 120 m/s and are usually marked with the symbol **B**. They come in different styles from simple direct vented to sealed units and protection can vary considerably with different hazards. They may also have other attachments to protect more of the face but can suffer more from misting than glasses unless anti-fog treated.

**Visors** offer protection against **Medium Energy** particles at up to 120 m/s and are usually marked with the symbol **B**. Available in a variety of materials such as polycarbonate, more chemically resistant acetate or metal mesh. They also lend themselves to direct mounting on safety helmets and offer good ventilation.

### Types of eyewear: a simple guide

**Safety Glasses** are usually the most cost effective option for protecting against mechanical and optical risks but have significant limitations. They are normally only suitable for protection against **Low Energy** impacts up to 45 m/s, marked with the symbol **F**. Higher impact levels may force the glasses back into the face or penetrate the lens.

# Our eyewear protection guide.

## Eyewear in practice.

### PRODUCT SPOTLIGHT



#### OUR REF: SG10

Deluxe indirect vent goggles with tough anti-scratch coating for longer life. Lightweight and extremely durable. Individually packed for convenience. Suitable for protection from average speed impacts and liquid splash. ANTI-FOG coating.

**EN 166:2001**



### Introduction

In this section we will take a closer look at potential problems which may occur in choosing the correct eyewear and most importantly ensuring the user wears it. There are several factors which can influence the type of eyewear needed and also the level of acceptance by the workforce.

**Lens Fogging** generally occurs when there is insufficient airflow around the lens or where there are large temperature and humidity changes. Typical problematic areas could include steamy atmospheres such as those found in food processing, transitions between low and high temperatures and where physical exertion takes place. At best the wearer will remove the eyewear to wipe off the condensation, at worst they will simply stop wearing the eyewear. In situations likely to produce fogging, eyewear treated with an anti-fog coating should be used. This coating helps prevent the tiny droplets of moisture from building up on the lens and can reduce or eliminate fogging completely.

**Scratched lenses** are another problem with modern materials such as polycarbonate which can be damaged if placed lens down on any abrasive surface. All Sitex eyewear is treated during manufacture with a hard coating to reduce lens damage during use. If a lens is badly scratched the user will often remove the eye protection to improve the view or replace the protection completely resulting in increased costs. (\*Except Visitor™ specs).

**Optical quality** is obviously of paramount importance, a lens or visor that distorts the users view is unacceptable in modern eyewear. All Sitex safety glasses have **Class 1** optics which are suitable for use all day.

**Design** is an import factor when assessing user acceptance in the workplace. Sitex are constantly evaluating new styles to keep pace with the latest industry trends. Wearers want lightweight stylish products which can be comfortably worn for long periods. The addition of separate side shields on safety glasses has been largely superseded by stylish wraparound styling.

**Prescription lenses** can be accommodated with either styles to cover the users own glasses or more conveniently, actually manufactured to the users own requirements and incorporated into the safety eyewear directly.

**Choice** in today's market is also important, with a wide range of styles available from our own range we are always happy to advise on suitable products. Sitex eyewear is all tested to the latest standards with copies of the relevant CE certificates available on request. We can also offer the full range of Bollé products with most popular styles held in stock and also access to the Bollé prescription service.

**Comfort** isn't just about weight, eyewear must fit correctly so that it remains in place during use. Loose fitting glasses which require constant attention to keep in place will soon be discarded. To this end we can offer styles with different sidearm variants including adjustable versions. Glasses can also be enhanced with accessories such as cords to either hold them more securely in place or allow the user to remove them to hang around the neck when not required.

**Lens tints** are available to cover a wide range of applications from simple sunglare to UV protection when welding. Our experienced staff are always available to offer advice on the best lens types for particular applications.

**Finally** and perhaps most important of all, the best eyewear in the world is useless unless it is being worn correctly for the whole time the user is at risk.



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