

# Choosing lens tint

How to pick the right tinted safety glasses for your job



Safety glasses come in numerous shapes and styles, but do you know how to choose the right tinted safety glasses for your job?

Safety glasses are available in many different tints that serve many different purposes, depending on the job at hand and your environment.



## Why does choosing the right lens matter?



**The top reason why lens tint matters comes down to safety.**

### Safety

When you're wearing the right colour of tinted lenses, not only will this help protect your eyes from the hazards of the job at hand, but your eyes can feel less fatigued from strain that can result from different working conditions. This reduced fatigue can result in fewer instances of workers removing eyewear from their face due to discomfort, thereby keeping them safer. It's also important to look for eyewear that meets CSA Z94.3, which means it has passed impact testing and other safety requirements that can help protect your eyes.



### Health

The right eyewear can help reduce light sensitivities, eye strain and headaches for wearers. Polycarbonate lenses contain UVA and UVB coatings, which help protect eyes from light conditions that can damage them and increase a wearer's risk of developing eye disease, including cataracts. Different people have different needs, and choosing the right lens tints can be beneficial to a worker's health.



### Productivity

Certain lens tints provide contrast and can help workers see fine details better and more easily. This can help workers complete certain tasks more accurately and quickly.

**This is one of the most important considerations when choosing a lens tint – and in general!**



### Comfort

When personal protective equipment (PPE) is comfortable, workers are more likely to wear it and keep it on. This is why 3M produces so many different styles of safety eyewear and encourages sampling different pairs of safety glasses to see what will work for a worker's individual face size and shape. To help objectively measure comfort and fit, we developed the **3M™ Eyewear Fit Testing System** to help measure gaps and fit around the eyes to promote optimal protection and comfort.

## The top four colours of 3M™ Protective Eyewear tinted lenses

**Clear**

Maximum amount of light reaches the eye for good vision and acuity

**Indoor/  
outdoor**

Helps reduce brightness and glare when working both indoors and outdoors

**Yellow/  
amber**

Increases contrast and reduces haze from blue lighting

**Blue**

Helps reduce brightness and glare from indoor lighting

### Clear

It likely isn't a surprise that clear safety glasses are the most popular choice. Luminance transmittance is the highest with clear safety glasses, at 93%. This means that a clear lens allows for the maximum amount of light to pass through the lens, which is beneficial for tasks requiring well-lit environments. Safety eyewear lenses made with polycarbonate will naturally absorb approximately 99% of UVA and UVB light, which provides additional protection to the user. All 3M polycarbonate lenses have been certified to the newest CSA Standard Z94.3-15 to help ensure compliance and safety.



Safety glasses with clear lenses are best for everyday use and are appropriate for a wide variety of applications and uses.

### Indoor/outdoor grey

This lens tint is a grey that is light enough to comfortably see through while working inside and yet is dark enough to be comfortable while working outside. Indoor/outdoor grey lenses have a 68% luminous transmittance, which allows for more protection in bright outdoor light while enabling workers to see well inside. This type of lens tint can help prevent eye strain because eyes don't need to repeatedly adjust when workers move from bright outdoor light to dimmer indoor light.



This lens tint is preferred by people who work in shipping and receiving, at loading docks, on forklifts, in construction and similar jobs.

### Yellow/amber

This lens tint is ideal for daytime overcast or foggy conditions because it can help provide contrast and visual acuity to the wearer's field of vision. Please note that safety glasses with this lens tint are not to be used for night driving as they can reduce the amount of total available light, which may cause a safety hazard. Yellow/amber lenses can also help protect wearers from the harmful blue light that is emitted from computer screens, mobile phone screens, and LED lights that are common in certain office settings.



This lens tint is ideal for applications that include inspections in manufacturing lines, where assembly takes place in different areas.

### Blue

Lenses with a blue tint are similar in use to yellow/amber lenses and can help reduce brightness and glare in indoor areas with fluorescent lights. Blue-tinted safety glasses are ideal for completing inspections and other tasks where glare, eye stress and fatigue are common. Blue lenses are also used in the food industry to provide better visibility in preparation and processing areas.



For example, if a lens was to break, the blue pieces would be highly visible to remove more easily. This is the same reason why earplugs used in food manufacturing often have blue cords.

For help with determining which of our ten eyewear lens tints are best for your unique application, contact us for more information.

