

A Closer Look At Eye Protection

It goes without saying that eye protection on a construction site is a top priority. From the concrete worker on the ground to the sheet metal worker on the roof, all construction workers should regularly wear ANSI-approved protective eyewear. March has been designated Workplace Eye Health and Safety Month, making it the perfect time to ensure eyewear equipment is up-to-date and protective of workers.

The Hazards

According to the National Institute for Occupational Safety and Health (NIOSH), approximately 2,000 people sustain job-related eye injuries on the job every day. Construction workers bear the brunt of workplace eye injuries and OSHA statistics show that they have much higher incidents of eye injuries than any other industry.

There are so many potential eye injury hazards on a construction site including:

Particles: Small bits of dust, cement, wood, metal or other building materials can scrape the surface or blow into eyes.

Projectiles: Large or small objects can strike or get lodged into the eye—or any part of the face—such as wood, metal, nails, staples, other jobsite materials, etc.

Trauma: Blunt force trauma could occur if a worker falls, runs into objects or equipment, or something falls on them.

Burns: Chemical burns can result from industrial chemicals or cleaning products being splashed into the eye. Thermal burns can occur when using a welder without proper protection.

Let's take a closer look at eye and face protection

Contractors paid more than \$2.6 million in OSHA fines (third highest of all violation categories) for allegations associated with failing to protect their employees' eyes and faces in 2016. These fines are a fraction of the total

costs associated with this failure. According to OSHA, eye injuries cost employers more than \$300 million per year in lost production time, medical expenses and worker's compensation claims. Unfortunately, OSHA statistics also indicate that construction workers have a much higher rate of eye injuries per employee than any other industry.

Concrete crews frequently share jobsites with other subcontractors whose hammering, grinding, welding and sawing causes abrasive particles to become airborne. Common concrete operations like mixing mortars, sawing joints, drilling anchor holes, tearing out concrete and applying coatings can generate airborne face and eye hazards. Workers also need to protect their eyes from UV rays too.

OSHA standards require contractors to give crews appropriate eye and face protection for each task. A wide range of protective equipment is needed for concrete work, so meeting this requirement is no simple task. So, when you begin reviewing your job safety analysis documents, contact your HD Supply White Cap Account Manager to help ensure your pro-



cedures comply with current best practices.

Contractors can keep crews focused on eye and face protection by creating and using a written program featuring site-specific procedures. Every training experience should be documented. OSHA regulations require documentation, including selection, medical evaluation, fit testing, training and use and care of PPE were done. This includes safety glasses, goggles and face or welding shields. The program must be administered by a trained individual



who is qualified and knowledgeable in eye and face protection.

Meeting Safety Standards

OSHA-approved eyewear must be certified by the American National Standards Institute (ANSI) and meet the current ANSI Z87.1 (ANSI Z87.1-2015, ANSI Z87.1-2010, ANSI Z87.1-2003, ANSI Z87.1-1989) standards for eye and face PPE. All ANSI Z1-compliant products are marked with “Z87” on the frame or lens.

Getting behind the use of face shields

Face shields are becoming more common on concrete construction jobsites. They offer a higher level of protection to face and eyes and the light weight makes them more user-friendly. They offer protection not provided by safety glasses, but workers should always wear safety glasses under face shields. The bottom and sides of face shields typically have gaps allowing potential contact from liquid or debris.

Face shields offer excellent protection when performing these tasks:

- High-velocity impact hazards created with chipping, breakouts, and shot-blasting concrete
- Flying debris and dust created by hammers drills, angle grinders, and saw-cutting
- Splash hazards when washing equipment with acid, applying sealers, or shot-creting
- Welding

There are many features to the lenses of protective eyewear that help improve their safety. Lenses come in different colors and filters that work differently in changing environments. There are filters that work better indoors and some that filter out light and work better outdoors.

Standard lenscoatings include:

Clear – Protects against impact but used indoors, so no light filtration is needed.

Gray – For use outdoors as it protects against light and glare.

Clear w/Slight Mirror – Good for indoor and outdoor use. Mirror coating reduces glare from artificial light, also lets in more visible light through lens.

Gold, Blue or Silver Mirror – Best for outdoor. Mirror coating reflects light.

Brown – Good for outdoor use.

Vermillion – Good for indoor use. Enhances contrast and provides optimum color recognition.

Amber – Provides maximum contrast and good in low light situations.

Protecting More Than Eyes

In addition to eye wear, face shields are being used more and more for an added layer of safety. They protect from flying objects and other types of on-the-job hazards. They cover the whole face and are normally worn over safety glasses or goggles.

The combination of face shield and eye protection offers construction workers enhanced protection from:

- High velocity impacts
- Flying debris and dust
- Splash hazards
- Welding

Face shields offer more coverage than merely wearing safety glasses. Construction jobs that require grinding, hammering, cutting, or sawing may be more inclined to require the use of a full face shield to protect workers.

Worth the Cost

OSHA estimates that eye injuries alone cost employers over \$300 million per year in worker’s compensation claims, medical expenses, and lost time. Protecting the health and safety of workers by ensuring they have adequate protective equipment will not only protect workers, but it can help the bottom line as well.

The Electronic Library of Construction Occupational Safety and Health (eLCOSH.org) has more than 50 training resources on eye protection developed by safety professionals.

<http://www.elcosh.org> (Search: “Eye Safety”)

The American Optometric Association’s website provides solutions to a wide range of questions about proper eye care in the workplace.

<https://www.aoa.org/patients-and-public/caring-for-your-vision/protecting-your-vision>

CHOOSING THE RIGHT SAFETY EYEWEAR

Innovative, well-fitting and comfortable glasses are safer, increase compliance and reduce injuries.



SPECTACLE DESIGNS OFFER THE BEST FIT, COMFORT AND PROTECTION

LENS COLOR CHART



CLEAR

For general-purpose, indoor applications that require impact protection.



GRAY

Commonly used in outdoor applications. Offers protection from excessive glare.



AMBER

Commonly used in indoor, low light applications. Enhances contrast.



SHOOTER'S AMBER

Offers high contrast in low light conditions with minimal strain on the eye.



COFFEE

Commonly used in outdoor applications. Best for enhancing depth perception.



INDOOR / OUTDOOR MIRROR

Clear UV400 polycarbonate lens provides 100% protection from harmful UV-A and UV-B rays. Coated with a light gold mirror finish. For indoor and outdoor applications.



BLUE INDOOR / OUTDOOR MIRROR

Clear UV400 polycarbonate lens provides 100% protection from harmful UV-A and UV-B rays. Coated with a light blue mirror finish to reduce glare.



3.0 IR FILTER

Used around welding sites or for light brazing or cutting.



5.0 IR FILTER

Used around welding sites or for medium to heavy cutting and medium to heavy gas welding.



INFINITY BLUE

Used in indoor applications where there is an excessive amount of yellow or sodium vapor light. Offers a high level of contrast.



SILVER MIRROR

Gray polycarbonate lens with silver mirror coating. Commonly used in outdoor applications. Reduces glare.



ICE BLUE MIRROR

Gray polycarbonate lens with a double layer of silver and blue mirror coatings. Commonly used in outdoor applications.



SKY RED MIRROR

Gray polycarbonate lens with a double layer of silver and red mirror coatings. Commonly used in outdoor applications.



ICE ORANGE MIRROR

Gray polycarbonate lens with a double layer of silver and orange mirror coatings. Commonly used in outdoor applications.



BLUE MIRROR

Gray polycarbonate lens with blue mirror coating. For outdoor applications. Reduces glare.



Ratcheting Temples
Allows the lens to pivot for coverage of brow and cheekbone.



Vented Frame
Allows air to circulate and prevent fogging.



Adjustable Temples
4 choices of temple lengths for a comfortable, custom fit.



Rubber Cushioned Temple Tips
Cushioned ends hold glasses in place and relieve pressure points.



Adjustable Nose Pad
Offers different angles.

