The WORKHORSE® DYK Series
EYE PROTECTION

1 DID YOU KNOW...What eye/face protection is?

- Eye and face protection can be described as protective gear that reduces the risk of injury caused from exposure to flying debris, chemical splashes, impact from tools, dust etc.

2 DYK What safety standard eye protection is tested to for certification?

- Eye and face protectors are tested to the CSA Z94.3 standard.
- Bunzl Safety uses the Safety Equipment Institute (SEI) to certify all our eye and face protectors.

3 DYK how to recognize which glasses are certified safety glasses?

- The consumer can look for the certification body's logo on the inside arm of the spectacle or in some cases on the face shield.
- There are a few recognized and accredited certification bodies in Canada, such as the Safety Equipment Institute (SEI), CSA, and UL. All of these certification bodies are accredited to certify product to the CSA Z94.3 standard.
- In the case of Bunzl Safety product, the consumer would look for the following:

4 DYK What different materials are used in the lenses of safety eyewear?

- **Hi-Vex** - More impact-resistant than CR39 plastic. Available with all surface treatments (coatings), 100% UV filtering, light weight. Material is very clear.
- **Polycarbonate (All WorkHorse products use polycarbonate lenses)** - Most impact-resistant of all lens materials, light weight, can be coated for scratch resistance and Anti-Fog. Most have built-in UV radiation absorption properties.
- **Plastic (CR39)** - About one-half the weight of glass, resistant to solvents and pitting.
- **Trivex** - More impact resistant than CR39 Plastic, less impact resistant than polycarbonate, UV radiation absorption properties.
- **Glass** - High-density material resulting in heavy lenses. Loses impact resistance if scratched. Does not meet impact criteria as set by CSA Z94.3.

5 DYK How to tell if your safety eyewear fits correctly?

- Ensure your safety eye wear fits properly. Eye wear should cover from the eyebrow to the cheekbone, and across from the nose to the boney area on the outside of the face and eyes. Eye size, bridge size and temple length all vary. Eye wear should be individually assigned and fitted so that gaps between the edges of the device and the face are kept to a minimum.
- Eyewear should fit over the temples comfortably and over the ears. The frame should be as close to the face as possible and adequately supported by the bridge of the nose.
- Users should be able to see in all directions without any major obstructions in their field of view.

6 DYK How to corretly take care of your safety eyewear?

- Clean your devices daily. Follow the manufacturer's instructions.
- Avoid rough handling that can scratch lenses. Scratches impair vision and can weaken lenses.
- Store your devices in a clean, dry place where they cannot fall or be stepped on. Keep them in a case when they are not being worn.
- Replace scratched, broken, bent or ill-fitting devices immediately. Damaged devices interfere with vision and do not provide protection.
- Do not change or modify the protective device.

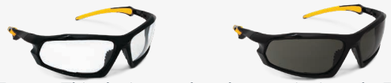
7 DYK How impact resistant eyewear is tested to the CSA standard?

- Tests are completed by propelling either a 6.00 ± 0.05 mm diameter steel ball horizontally at a speed of 50.5+ m/s, or a 6.35 ± 0.05 mm diameter steel ball horizontally at a speed of 46.5 ± 0.5 m/s.
- The steel balls used in this test shall have a hardness in the range of 56–67 RHC. The 6.00 mm steel ball shall have a mass of 0.88 ± 0.02 g. The 6.35 mm steel ball shall have a mass of 1.04 +0.03/-0.02 g.
- The speed of the steel test ball is determined using timing equipment as laid out in the CSA Z94.3 standard.
- The points of impact that are tested include the midpoint between the pupils (nose bridge area), the point directly in front of pupil area, and the temporal area.

8 DYK The different frame types used in safety glasses, as well as the benefits they provide?

- **Frameless** - Frameless designs are lighter weight for all day user comfort. This style of protector provides unobstructed peripheral vision. Many styles available in an over the glass (OTG) type of design to wear over top of prescription glasses.

- **Half-Frame** - Half-frame design offer enhanced peripheral protection. This design can be offered in a variety of temple styles for all head shapes (pivoting, adjustable) and colors.



- **Full-Frame** - This design tends to be sportier in style. These can come in multiple patterns and styles to meet your fit and feature requirements.

- **Hybrid** - This design includes a soft foam padding that forms a seal to keep out dust and debris. This design can quickly interchange between goggle and safety glass by switching out the temples and goggle straps.

- **Goggles** - This design offers added protection from multiple hazards like liquid splash, impact, dust, and debris. The user can choose from direct ventilation, indirect ventilation or non-vented to fit the application. Styles are available to fit comfortably over most prescription glasses. Most styles are offered with anti-fog lens coating. The typical wrap around design offers a snug, comfortable fit with a wide viewing area.

9 DYK how long UV, Anti-Fog, or Hard coating will last on safety eyewear?

- Assuming that the user is following manufacturer's instructions for care and storage, the UV and hard coating features can be expected to last for approximately 5 years. The anti-fog feature has a useful life expectancy of approximate 2 years.

10 DYK How to tell when it's time to replace your safety eyewear?

- While there is no definite amount of time when the eyewear should be replaced, there are some things to consider when thinking about if it is time to replace your eyewear, such as:
- Does your eyewear have any scratches, cracks, missing or broken pieces? Inspect your glasses before each use. If there are scratches, cracks, gouges, broken pieces, or missing pieces in/on any of the components of the eyewear, it should be replaced immediately, as vision and impact resistance can be impaired.
- **Coatings** - having eyewear that has a hard coating on the lens can increase the useful life expectancy. The coating provides additional protection against scratches which ultimately lead to the eyewear needing replaced.
- **Cleaning** - following manufacturer's instructions are necessary when cleaning your eyewear. Using a dry cloth or a piece of clothing to clean the lens can lead to scratches which effects the lifetime of the product. Using a mild dish soap and warm water to gently clean the glass is the best way to ensure the eyewear is not compromised.
- **Storage** - it is important to store your eyewear in a place where the product is safe from debris, breaks or falls. If possible, the eyewear should be stored in a case away from direct sunlight.

11 Continues on next page

BUNZL safety

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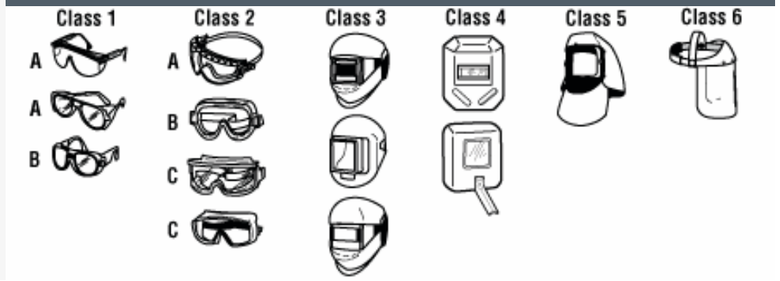
11 DYK how to select the proper eye or face protection for the job?

Nature of Hazard	Hazardous Activities Involving but Not Limited to:	Recommended Protectors
Flying Objects	Chipping, scaling, stonework, drilling, grinding, buffing, polishing, hammer mills, crushing, heavy sawing, planing, wire and strip handling, hammering, unpacking, nailing, punch press, lathework	Class 1A - Spectacles Class 2A, 2B - Goggles Class 5A, 5B - Hoods Class 6A, 6D - Face shields
Flying particles, dust, wind, etc.	Woodworking, sanding, light metal working and machining, exposure to dust and wind, resistance welding (no radiation exposure), sand, cement, aggregate handling, painting, concrete work, plastering, material batching and mixing	Class 1A - Spectacles Class 2A, 2B - Goggles Class 5A, 5B - Hoods Class 6A, 6D - Face shields
Heat, sparks, and splash from molten materials	Babbiting, casting, pouring, molten metal, brazing, soldering, spot welding, stud welding, hot dipping operations	Class 1B - Spectacles Class 2C - Goggles Class 5C, 5D - Hoods Class 6B, 6C, 6D - Face Shields
Acid splash, chemical burns	Acid and alkali handling, degreasing, pickling and plating operations, glass breakage, chemical spray, liquid bitumen handling	Class 2B - Goggles Class 5B - Hoods Class 6A - Face Shields
Abrasive blasting materials	Sand blasting, shot blasting, shotcreting	Class 2B - Goggles Class 5B - Non-Rigid Hoods Class 6A - Face Shields
Glare, stray light (where slight reduction of visible radiation is required)	Reflection, bright sun and lights, reflected welding flash, photographic copying	Class 1A - Spectacles Class 2A, 2B - Goggles Class 5A, 5B - Hoods Class 6A - Face Shields
Injurious optical radiation (where moderate reduction of optical radiation is required)	Torch cutting, welding, brazing, furnace work, metal pouring, spot welding, photographic copying	Class 1B - Spectacles Class 2C - Goggles Class 5C - Hoods Class 6B - Face Shields
Injurious optical radiation (where large reduction of optical radiation is required)	Babbiting, casting, pouring, molten metal; brazing, soldering, spot welding, stud welding, hot-dipping operations	Class 3 - Helmet Class 4 - Handshield
Laser radiation	Laser cutting, laser surgery, laser etching	Class 2D - Goggles
Electric arc flash	Electrical installation, electrical maintenance, trouble-shooting of electrical systems, disconnecting live electrical systems	Class 2E - Goggles Class 5E - Hoods Class 6D - Face shields

EXAMPLES OF EYE AND FACE PROTECTORS BY CLASS:



12 DYK What protection or benefits the different lens colours offer?

Clear - Highest visual activity and colour recognition.

Smoked - For outdoor applications where sunlight and glares cause eye-strain or fatigue.

Amber - For low light applications where contrast enhancement is required also reduces low energy blue light.

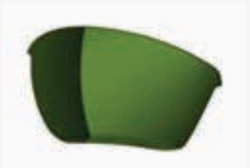
Indoor/Outdoor - Slightly reduces overall brightness of visible light.

Blue - Reduces brightness and glare from yellow light sources. Not intended for use in glass blowing.

Polarized - Reduces overall brightness, glare and reflected light. Reduces extreme glare from highly reflective surfaces such as lakes, rivers, snow, etc.

Mirrored - Reflects light sources, helping reduce brightness and eye-fatigue.

Photochromic - Darkens when exposed to UV light (outdoors), and lightens when UV light is reduced (indoors).



Infrared Filters - Reduces infrared radiation. Available with different ratings for levels of infrared filter intensity.

Brown - Reduces overall brightness, while allowing colour recognition.

Vermillion - Helps to improve visual acuity, clarity and contrast.

Orange - Reduces blue light in specific applications. e.g., blue light curing.