

Just the Facts... Safety Glasses and Tinted Lenses

1. Safety glasses with tinted lenses cannot be worn indoors, unless the tint is designed for a specific indoor radiation hazard or there is a documented medical reason that requires a tint.



2. American National Standards Institute (ANSI) Z87.1-1989 also reveals in the selection chart on page 16 that filter or tinted lenses that restrict light transmittal are "NOT RECOMMENDED" for impact eye protection, unless it is determined that a glare hazard exists.

3. Only safety glasses with special purpose indoor tints can be worn indoors. Technical Bulletin Medical (TB MED) 506, chapter 4.g.(2) states that, "Sun lenses and photochromic lenses are in the absorptive lens class. Both are approved for industrial use; however, only for outdoor wear. Special-purpose tints used for indoor tasks shall be static (nonphotochromic) and fit for a specific task; i.e., welding, glassblowing, etc." This means that only safety glasses with special purpose indoor tints can be worn indoors.

4. The Tri-Service Vision Conservation and Readiness Program at the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) recommends:

When tinted lenses are required for job performance, they be in the form of a flip-up lens covering an ANSI Z87.1 device; or be in a lens and frame combination meeting ANSI Z87.1 standards.

Tinted lenses will not be worn indoors unless designed for a specific indoor radiation hazard.

Photochromic lenses should rarely be authorized. Local policy may be established to totally prohibit photochromic lenses. The supervisor is responsible to ensure safe use of photochromic lenses (that is, outdoor wear only). Photochromic lenses in industrial safety eyewear will only be used in outdoor locations where movement into and out of buildings or other facilities does not occur. When an employee is authorized to wear photochromic lenses, the employee should bear the additional cost over that of standard clear safety lenses. Photochromic materials must be in plastic or polycarbonate lenses.

The relatively slow rate of tint change in photochromic lenses presents a hazard to workers moving indoors or into other areas with lower illumination levels than outdoor environments. The initial darkness created by slow tint change combined with lower interior lighting reduces the illumination on indoor tasks and presents an unacceptable risk to employees. Employees wearing photochromic lenses must be made aware that the materials are less than optimum for impact protection and present a potential hazard when moving from an area of full illumination to one of reduced illumination.

5. If the employee works outdoors for a significant portion of the time on a regular basis and needs sunglasses or tinted lenses to properly do their work, then either clip-on/flip-up tinted lenses can be used or a second pair of tinted safety glasses can be obtained. If the employee works in eye hazardous areas or jobs indoors, in dim illumination, or at night then they must use clear safety glasses.