THINGS TO CONSIDER WHEN CHOOSING A LENS

- Protective eyewear is available in a variety of tinted lenses as well as clear. These tints are not merely decorative, but are designed to enhance the workers vision under various lighting conditions.
- The amount of visible light that passes through each lens and how the lens tint affects vision are important factors in lens selection.
- The American National Standards Institute (ANSI) provides guidelines for clear and filter plano (non-prescription) lenses in its Z87.1-2015 edition.
- All Crews and U.S. Safety styles absorb 99.9% of UV radiation.
- Noted styles also meet Military MIL-PRF-31013 Test Regiment for High Velocity Impact Protection.

Clear:

- 90% of light is transmitted – the remainder of light is blocked by the coating on the lens.
- Provide excellent optics for general applications.
- Most popular lens because it allows the majority of light to pass through the lens while not distorting the visible color spectrum.
- General purpose providing maximum impact protection and maximum visibility.

Amber:

- 80% of light transmitted.
- Excellent for maximum contrast enhancement, particularly in low light situations.
- The amber lens color blocks virtually all blue light to reduce haze and glare making all blue look black or gray.
- The disadvantage is that when you eliminate blue light, you distort color recognition.

Light Blue:

- 68% of light transmitted.
- Option to Indoor/Outdoor lens.
- Reduces glare from artificial light such as halogen and fluorescent.

Indoor/Outdoor Clear Mirror:

- 36% of light is transmitted.
- Clear lens with a mirrored coating on the outside.
- Allows more visible light through than other tinted lenses and may be used indoors.
- Best for workers going inside to outside, like forklift drivers, for reducing glare from artificial light such as halogen and florescent. Lens is not transitional.

Brown:

- 13% of light transmitted.
- Distinguishes color while reducing glare and brightness for outdoor applications. Meets the traffic signal recognition requirements of ANSI Z80.3.
- Commonly used in construction or outdoors where sunlight and glare cause eyestrain and fatigue.

Gray:

- 13% of light transmitted.
- Reduces the amount of light that passes through the lens.
- Commonly used in construction or outdoors where sunlight and glare cause eyestrain and fatigue.

Polarized:

- 13% of light transmitted.
- Reduction of reflected light (glare).
- Improves optical clarity.
- Enhances contrast and depth perception.
- Minimizes eye fatigue.

Mirror – Silver, Blue, Fire, Emerald, Black, and Blue Diamond

- 9%-13% of light is transmitted.
- Gray lens with mirrored coating on the outside.
- Commonly used in construction or outdoors where sunlight and glare cause eyestrain and fatigue.
- The "mirror" coating reflects light reducing the amount of light that passes through the lens.

Filter Shade Lens:

- Filter shades lenses protect against ultraviolet and infrared radiation that is generated when working with molten metal and in welding, cutting, soldering, and brazing operations.
- Filter shades are marked with a number on the lens indicating the shade number.
- Green Filter 3.0 lens 12% of light is transmitted.
- Green Filter 5.0 lens 2% of light is transmitted.

MCR Safety recognizes that these are general definitions and recommends you should always consult with your safety director at the facility where the products are to be used to insure the proper application.

MCR Safety. *Gloves Glasses Garments*. www.mcrsafety.com/resources/mcr-safety-catalogue. 2016-US-ENG-CAT.pdf. (2016). 62.