FRANK'S REPORT:

Are You Using The Right Lens?

Believe it or not, lens color is the most important part about purchasing your safety glasses. Surprisingly, the neat flames on the side have very little to do with your safety, but they look sweet. They can help with the ladies too. Simply amazing.

Before we start, some things you should know. Most, if not all safety lenses are made of polycarbonate plastic. This is hard plastic, and not plastic wrap like I originally thought. Plastic wrap, I assure you, makes terrible eye protection, unless you want to keep leftover food and TV dinners out of your eyes. This plastic meets all of the basic ANSI and OSHA requirements, and provides 99.9% UV protection. What a combination.

So let's embark on an awesome journey through the magical land of safety glass lenses. By the end of this report we'll probably be best friends, share sunsets together, and you'll know exactly what lens type is the best for you.

Starting with the big one…

CLEAR LENS: (Indoor Applications)

The most common lens in the universe is clear. Actually I can't statistically back that up, but I do see our sales reports. And even though most of it is censored like a top secret FBI document, I can still make out what types are the most popular.

A clear lens is ideal for indoor applications. I'm not saying that you can't use them outside, but they excel indoors. If you must wear them outside, take comfort. Like most safety glasses, clear lenses can still provide 99.9% UV Protection. What's with the .1%? Who knows? I'm assuming some scientist doesn't want to get into trouble, and left it slightly open for interpretation.

The clear lens offers about 92% visual light transmission (VLT). What does visual light transmission mean? I don't know what it means. Let's ask my cousin Webster. Webster owns a library card, and he can name all of the Star Trek characters. Webster defines visual light transmission as the amount of light that passes through an object. And now you know. 92% means that it's not stopping too much light. If it's bright outside and you wearing a clear lens, it's going to seem bright.

The clear lens is designed for indoor applications that require some form of impact protection. Now, the question boils down to what type of indoor applications would a clear lens be best for? For example, you might use a clear lens for any of the following applications or environments:

Indoor construction, lab work, food processing facilities, American Gladiator competition, light yard work, garage work, model airplane building, assembly work, factory work, and toe nail clipping.

A clear lens can be used for anything. Now if you're going to be out in the scorching hot sun all day you might want to get something else, but if you have a job in one of the listed fields above or you're handy at home you might want to invest in the clear lens.

I wear clear lenses to make me look smart and sophisticated. I think it works… at least my Mom says it does.

Popular Clear Examples:
Radians Rad-Atac Clear
Elvex Elite Clear

GRAY LENS: (Outdoor Applications)

Gray lenses are quite popular. Not Wayne Newton popular, but popular nonetheless. These lenses are most commonly used for outdoor applications because they do such a fine job of protecting against the world's greatest monster, and provider… the sun. Sure she gives us life, but accidentally fall asleep outside smothered in baby oil and butter…watch out!

The sun, like your nephew's soiled diaper, can burn your eyes, cause eyestrain and eye fatigue. A gray lens protects against these dangers by allowing only 16% Visible Light Transmission.

The gray lens does not distort color. So, you'll see objects in natural color while maintaining depth perception. Seeing things in natural color is important. It will keep you from accidentally wearing a purple shirt with orange pants. Eww… Of course my Mom sets out my clothes in the morning so I don't have to worry about that.

Gray lenses fight hard against sun glare. The glare of the sun can cause strain and fatigue. A gray lens will throw down fisticuffs with the sun's glare if it has to.

A gray lens is ideal for outdoor applications. So, let's take a look at some of those applications:

Outside construction, arbor and landscaping work, utility work, municipal work, bicycling, sports, sun bathing, cruising for chicks, lawn work, and delivery work.

Another useful lens, the gray lens is second only to the clear lens. I expect a showdown soon. It'll be the clear lens versus the gray lens in a no holds barred steel cage match. Mirrored lenses provide excellent color recognition (utility workers and linesman), and traffics and warning signal recognition.

Popular Gray Examples:
Willson Vapor Gray
DeWalt Reinforcer Gray

INDOOR/OUTDOOR LENS: (Indoor/Outdoor Applications)

The indoor/outdoor (mirror 50) lens is used for um… oh yeah indoor and outdoor applications. This lens is one of the most versatile lenses. It has 50% visible light transmission, which means that it's blocking about half of the light that could get through to your eyes.

The lens is actually a clear lens with a mirrored coating. The mirrored coating reflects sunlight and glare, which cuts down on eye fatigue and strain. It provides protection in the sun, but because of its clear lens and the high amount of visible light that passes through, this lens is effective inside as well.

The unique nature of this lens helps your eyes adjust when moving from a shaded area to a bright area and vice versa. Without these this lens it's like a punch in the face every time you go in and out. This lens is ideal for individuals that work outside, but take a large number unnecessary breaks inside. Indoor/Outdoor lenses allows individuals to wear the same pair of safety glasses for indoor and outdoor applications. The most important thing to remember is to make sure that the door is shut when the air conditioner is on.

The indoor/outdoor lens can be used for most applications, whether they're inside or out. They work best for individuals moving from shade to direct sunlight and back again. You know… people who have trouble making up their mind.

Popular Indoor/Outdoor Examples:
DeWalt Protector Indoor/Outdoor
AO Safety Fuel Indoor/Outdoor

MIRRORED LENS: (Outdoor Applications)

Mirrored lenses, whether they're red, blue, silver, or green are for outdoor use, where the sun inflicts eyestrain and fatigue. In fact this lens can be used in the brightest sun conditions. How bright? Bright. Now, if your skin is bubbling the mirrored lens might not be effective.

The mirror coating reflects the sun's glare into your friend's face, and like a gray lens has low visible light transmission. A mirrored lens is more effective than a gray lens, because a mirrored lens has an extra layer of protection, like two pairs of underwear.

Mirrored lenses are used for outdoor conditions just like a gray lens. So, if you're planning on buying a gray lens, but you want more protection, spring for the mirrored lens. Mirrored lenses provide excellent color recognition (utility workers and linesman), and traffics and warning signal recognition.

Popular Mirror Examples:
Elvex Xenon Flash Mirror
Harley Davidson 100 Blue Mirror

POLARIZED LENS: (Outdoor Applications)

The polarized lens is the ultimate in sun protection. The only thing stronger is Uncle Lester's $5 cologne. Polarized lenses are becoming the most sought after glasses on the market. This lens is designed for outdoor use where reflected glare from water, snow, cement, and other hard surfaces exist.

Polarized lenses offer a gray lens with a mirror coating. The mirror eliminates the sun's glare and keeps your eyes comfortable and relaxed. A polarized lens only allows 12% visible light transmission. Which is more protection than a simple gray or mirrored lens.

The best aspect of the polarized lens is its rich color spectrum. Even though your eyes are protected, you can still see clearly. You'll finally be able to see the detail and glory of all ten pounds of Aunt Millie's blush.

As you would assume, these lenses are for outdoor use.

Popular Polarized Examples:
Radians Cobalt Polarized
Orange County Choppers 300 Polarized

AMBER LENS: (Low Light Applications and Hazy Lighting Conditions)

Amber's not just a pretty name; it's also a lens color. The amber lens is best suited for low light situations. Notice I said low light and not low life situations. An amber lens absorbs blue and ultraviolet light. Everything seems brighter with an amber lens. They are excellent while working outside at dawn or dusk, and hazy, overcast, and foggy days.

The amber lens allows 90% visible light transmission and is ideal for creating contrast in low light areas. The amber lens gets its strength by blocking blue light. This clearly defines and highlights objects in low light. Night vision... Sweet.
An amber lens can be used indoors and outdoors, but from personal experience you might want to avoid using them on a bright sunny day. The awesome contrast skills of this lens can fry an eye, if not used with caution. If you need things to pop out at you, go with an amber lens. An amber lens would also be helpful for ductwork and tomb excavation. An amber lens should not be used for nighttime driving or where infrared radiation protection is required.

Popular Amber Examples:
Mirage Small Amber
Harley Davidson 700 Amber

ESPRESSO LENS: (Outdoor Applications)

If you get an espresso lens make sure it's a mocha java…kidding. The espresso lens, often called a brown lens, have several unique features. Espresso lenses are ideal for outdoor applications because darker lenses protect against the sun, eliminating eyestrain and fatigue.

The unique color of this lens absorbs and minimizes glare, leaving you with one less thing to worry about. Now you can focus on things that really matter, like bicycle horns and seats. Espresso lenses have 15% visible light transmission, putting them right on par with gray lenses.

The espresso lens really stands out because it meets traffic recognition requirements. This is the ideal lens for drivers, motorcyclists, and outside workers that might need to hop into a car and drive to a different jobsite or ice cream eatery.

Popular Espresso Examples:
Uvex Genesis Espresso
Harley Davidson 100 Espresso

COPPER LENS: (Outdoor Applications)

What's the difference between copper lenses and espresso lenses? Not much. The copper lens has all the great features of the espresso lens, including the sun and glare protection. It just doesn't have that frothy taste we've come to love.

The copper lens sets itself apart by blocking even more blue light. Which increases clarity. The copper lens also has a slightly higher visible light transmission at 20%, making it effective in medium to bright outdoor conditions.

Popular Copper Examples:
Radians Illusion Copper

VERMILION LENS: (Pink Lens: Low Light Applications)

A vermilion lens is another low light lens that increases contrast. Geez what's the difference? This lens provides 55% visible light transmission to keep things looking sharp and bright; however, it doesn't not provide as much contrast as an amber lens at dawn or dusk.

A vermilion lens reduces the glare from halogen and fluorescent lights, reducing eye fatigue. In addition to reducing glare, a vermilion lens increases the visibility of target point sighting the red alignment or leading beam. What? Exactly.

A lens of this magnitude was made for inspection and low light situations.

Popular Vermilion Examples:
Uvex XC Vermilion

BLUE LENS: (Semiconductor Fabrication, Photolithography Applications)

A blue lens is used in semiconductor fabrication, photolithography, and similar industries where there are high levels of incandescent/ fluorescent lamps. A blue lens also allows for more visible light. 57% to be exact.

A blue lens shines when it's reducing the glare from artificial lights, such as halogen and fluorescents. Are there any office workers out there? They are effective in areas with high levels of yellow light, including sodium vapor lighting. Ah, yes the ole sodium vapor lighting.

Popular Blue Examples:
Elvex Xenon Blue

FILTERED LENS: (Welding Applications/ Any Place Where There Is Heat)

A filtered lens is the most misunderstood lens of all. It's like Cousin Pete and his slurred speech. Greenish in color, the filtered lens comes in a variety of different shades. The shades are numbered, with the most popular shades being 2.0, 3.0 and 5.0. The highest numbered shades offer the most protection.

A filtered lens is worn for applications and environments where others are performing welding tasks such as torch brazing, torch soldering, gas welding and oxygen cutting. These lenses also protect against UV and Infra Red radiation that occurs while working with molten metal. My mom had a molten once.

A simple chart for the most popular shades and the most common uses can be found below:

IR 2.0 – Torch soldering
IR 3.0 – Torch soldering, torch brazing, and cutting
IR 5.0 – Torch brazing, cutting, and gas welding

Popular Filtered Examples:
Uvex Astro Spec 3.0 Filtered
Uvex Astro Spec 5.0 Filtered

ANTI-FOG LENS: (Sudden Temperature Change Applications)

Anti-Fog coatings are become increasingly popular in this world of climate change. Walking out of your house in the winter naked, does not count as a climate change. Many of today's lenses are equipped with an anti-fog coating, which minimizes lens fogging. This simple coating is most effective in places where rapid change in temperature occurs.

For example, an anti-fog lens would be ideal for workers that move from freezers and air conditioning to factory floors and loading docks frequently. Anti-fog lenses allow these workers to move between these areas of sudden temperature shift without removing their eye protection due to fogging.

Popular Anti-Fog Examples:
DeWalt Reinforcer Clear Anti-Fog
Orange County Choppers 100 Clear Anti-Fog

BIFOCAL LENS: (Poor Vision and Detail Work)

This modern invention combines a safety lens with all of the benefits of a reading lens. By combining lenses, manufacturers have eliminated the need for two separate safety glasses.

These lenses are not only for individuals with ailing vision, but they are helpful for detail work as well.

The diopters (magnifiers) of these safety glasses are molded right onto the lens, and are most commonly found in 1.0, 1.5, 2.0, 2.5, 3.0 powers.

Popular Bifocal Examples:
Olympic Clear 2.0 Bifocal
AO Safety BX Clear 2.0 Bifocal

IN CLOSING:

Our awesome trip has come to a close, and we hope that you've learned about your lens type and can be more tolerant of others' lens types. We're all one safe and happy family. If for some reason we haven't answered your question, give us a call at **1.888.278.0360**. And if everything else falls through, copy the other guy at work.

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