Value of Sunwear and Mirror Coatings

Study upon study has shown that the negative effects of ultraviolet light on eye health are increasing. Therefore the prescribing and dispensing of Rx sun wear has become a social and professional responsibility.

Customers today are very aware of the choices available in sunwear. The Rx customer is demanding the looks they see on other people but also what is available in the plano market in Huts, sporting goods stores, department stores and drug stores. If you don’t ask open ended questions, make suggestions or provide a solution they will seek out another provider who will provide them the sunwear they are demanding. Don’t allow that golden opportunity to slip by you.

Technology and Tools

Every professional needs to know the tools of their respective trades. Ophthalmic mirrors are systems composed of several components; the mirror, substrate, lens tint, backside AR, and other treatments.

The obvious beginning is a first surface reflector. We call this first surface, because unlike a bathroom mirror, ophthalmic mirrors are on the front side. This makes sense, because you don’t want to see your eyes when wearing sunglasses.

The choice of material is usually dependent upon the color and is selected by the coating company. It can be useful to know that mirrors are made, as you would expect, from metals like nickel and chrome.

Substrate

The common substrates are plastic, polycarbonate, mid-high index and glass. In general, polycarbonate (or polycarbonate-like) being impact-resistant is the substrate of choice. The possibility of sun wear being hit by objects is greater, hence the recommendation for a more impact resistant lens. Many people still prefer glass for its ultimate scratch resistance. There are several high end plano brands that supply mostly glass mirrors for this very reason.

Glass also finds popularity in rural areas because it was about the only substrate that could survive going through a hay bailer without being ruined.

Polarized lenses go with sun wear like "ham & eggs" or "peanut butter & jelly". The polarization blocks the excess glare generated from flat horizontal surfaces such as water, road, car hoods, etc. As an added benefit, polarized lenses are laminated so they offer enhanced shatter resistance. About the only time to avoid polarized lenses is for users in looking through plastic windows and viewing LCD displays due to the fact that the polarization will distort what your viewing. Piloting aircraft is the most common application that comes to mind.

A final note about substrate is bifocals. Lenses with split surfaces such as executive and flat tops with high add powers will not accept a mirror evenly across the change in lens height. Try to avoid this combination and steer the patient towards a progressive lens.

Tint

Ophthalmic mirror densities range from 5%-15%, so they can be hard to see. To make them standout, we add a base tint to the lens. For any given density of mirror, the darker the base tint, the more pronounced the mirror.

A Gray 80, Brown 75 or G-15 tint reduces bright sun light anywhere from 70% to 80%. By adding a Mirror Coating, depending on the type, you increase the reflective ability of the lens another 5% to 15%.

Though tint colors can stand apart from mirrors, the reasons for choosing them are the same when paired with mirrors. A brief review is in order. There are two considerations when choosing a tint color. The first is function and the second is fashion.

Function

Brown tints improve contrast, but change the way colors are perceived. Brown tints let you see the dips and bumps in the road better. That’s why drivers love them. Great for skiers who need to see the moguls. However, the blue sky will look washed out and gray but any green color, like grass, will really pop and stand out.

Gray tints preserve the perceived color balance. All colors look the same, but everything is just darker. That’s why photographers sometimes refer to gray as a neutral density filter. Gray is ideal for outdoor workers who need accurate color rendition, such as artists, police and architects.
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Green and its derivatives like G-15 are a compromise. They improve contrast somewhat and also skew perceived colors somewhat. The amount of change varies depending on if it is more gray/green or green/gray. Dark green makes an excellent all-around outdoor base tint.

Fashion
Tints are also used to complement skin tone. A silver mirror over a brown tint will go better with warm skin tones. The same silver mirror on a gray tint will complement cool skin tones. In fact, any color tint can be used to complement the skin or an item of clothing. Most people have more than one outfit and the most fashion conscious want multiple pairs of mirrors to match.

Another area where tints affect the mirrors is "attitude". Cool/harsh colors make a mirror more brassy. Silver over dark blue/gray gives a "motorcycle chrome and chain" look. Warmer, subdued colors can have a calming effect on the mirror, giving it a more classical look. Think Julie Andrews or Princess Diana.

With tints and mirrors you are only limited by your imagination.

Backside Anti-Reflection
A must for any eye wear user. Annoying light reflections are eliminated immediately.

Think AR is only for clear lenses? Think again! Go to any store selling high end sunglasses. Look at a $60 - $100 pair and a $150 - $250 pair. The difference is AR. It is silly to think we can always look towards the sun. You're active and the head is always turning. Outdoor wear sunglasses generally have bigger lenses (and the trend is for even bigger sizes). As you turn your head, the light catches the backside and reflects back into your eye. This causes discomfort and is especially fatiguing when using sunglasses for prolonged periods. In short, backside AR makes for a more comfortable pair of sunglasses.

Other Treatments
Protection from damaging Ultra-Violet (UV) energy is essential. There are countless studies expounding the benefits. Today most lenses have UV protection included. Make sure the lenses you select have it. If not add it.

Hydrophobic/Oleophobic coatings are often ignored but are an essential part of any good mirrored sunglass. Sunglasses see much harsher duty than most dress wear. Although not worn as often, sunwear is used at pools, beaches, in salt water, hiking, pretty much in every nasty environment you can think of. The water/oil dries and leaves a nasty residue, all but impossible to clean off. The TOP COAT protects the Mirror finish and allows for easy cleanability of the sunwear.

Identifying Needs Through Non Invasive Probing and Selling Techniques
In order to best serve our customers' needs, we have to gain an understanding of what they want or think they want and how their choice will mesh with their work and play lifestyles.

It is recommended that you engage your customer through a series of "open ended questions". Examples would be, "Tell me what you like or don't like about your current sunwear," or "What kind of look do you want to achieve with your sunwear selection?" The key is they do all or most of the talking and you listen. Sunwear patients have a good idea of what they want from their sunwear purchase, but often do not have the product knowledge necessary to make the informed buying decision. With proper recommendations from you, they will acquire one or more pairs of sunwear that meet or exceed their expectations. That is as good as it gets in our chosen profession.

Matching Needs/Wants to Solutions
Patients do not always know their own eye wear needs. You are the expert who has the correct solution to meet the expectations and needs of your patient.

Flash mirrors are an understatement, a "je ne sai quai" so to speak. People do not always want to be complimented on a specific object but rather a "total look". Eye wear "pops" without saying it.

Solid Mirrors are a nice, basic, classic sunwear look, especially in silver, gold and blue. All of those colors could be viewed as the "khaki and blue blazers" of mirrors. Now if you put on a solid silver mirror, then that khaki and blue blazer becomes the infamous motorcycle cop we all read about.