



Press Release

"They're called sunglasses and not summer glasses for a good reason."

ZEISS Protection for Your Eyes

Aalen, June 3, 2016

For most people, a pair of sunglasses is the perfect combination: it is a fashionable accessory which also protects their eyes from bright sunlight and energy-rich UV rays which can be like a sunburn for a person's eyes. A current survey (1) shows that fashion is the most important feature in a pair of sunglasses. But 45% of those surveyed also reported that they wear sunglasses when driving. For more than 75%, sunglasses are a must when playing sports or spending time outside.

Sunglasses are useful for everyone, for children and adults, with or without a prescription power, because a pair of sunglasses provide a person's eyes with essential protection.

The most important thing about sunglasses without a prescription power: eye protection

"There is one thing you should always keep in mind: never buy a pair of sunglasses if they don't offer proven UV protection," says Flora Schierano, marketing manager ZEISS Sunlens. "Because UVA and UVB are the high-energy portions of sunlight which are invisible to the human eye but which are damaging for eye health over the short and long term." That is why they are called sunglasses and not summer glasses: it is always important to protect your eyes from strong sunlight, no matter if you are lying by the sea in the summer or skiing and sledding in the winter.

The lens tint has no effect on UV protection – additives ensure UV protection with plastic lenses, while glass lenses absorb by far the largest portion of UV rays, protecting your eyes. Even when purchasing sunglasses at the supermarket or in the sports store, it is absolutely essential that you pay attention to the quality of light protection and, for children, to the special break resistance of the lenses.

An anti-reflective coating is a must, particularly with sunglasses. Reflections and stray light not only limit your vision, but the reflections between your eyeball and the back surface of the glass lens can also lead to double images and other irritating effects. Sunglasses without a prescription power are available with many different tints and frames at local retailers. Whether you are looking for a special tint or a particular pair of frames with tinted lenses, you will find what you are looking for at your optician's.



The most important second pair of glasses: available in every color and shape for all glass types

If you are wearing glasses or contact lenses for visual correction a second pair of glasses should offer light and sun protection. Any color can be created for individualized lenses. These are tinted in a dye bath in line with the customer's wishes: if you do not like what you find in the current color program or if you would like your own favorite color for your sunglasses, you can order these at ZEISS. Full color or gradient tints are available. Bi-color lenses with two different colors on the top and bottom of the lens are also popular.

Selecting the lenses which best fit your own unique style is a personal matter. Even though most consumers prefer light tints in grey, blue or brown, you will also find colors like Spicy Red, Sweet Violet and Pretty Pink in the color program.

"When selecting colors, the consumer should also be aware that their vision – and possibly their entire visual perception – changes with the color," explains Schierano. "Green, grey and brown are more neutral. A deep blue, however, is not to everyone's liking." Yellow is suitable for reducing glare overall, especially if your eyes are sensitive. The choice of colors is available for all types of corrective lenses – single vision or progressive lenses, Digital Lenses from ZEISS as well as for other lenses. There are only limitations with glass lenses because here the individualized tint does not work for technical reasons.

Even though these trendy colors might be alluring, a neutral color is recommended for an everyday pair of sunglasses, especially when you are going to wear these glasses for longer periods of time. And not all tinted lenses are suitable for driving, e.g. black-tinted lenses with more than 80% absorption – if you wore these in a tunnel, you would hardly be able to see. Sunglass lenses in glare protection category 4 are generally not suitable for driving because these lenses only transmit three to eight percent of the incoming light. Sunglass lenses with a tint intensity of 25% or higher are no longer suitable for driving once it starts to get dark. If you want to protect your eyes from sunlight and enjoy UV protection without purchasing a second pair of glasses, you can also combine everyday and sunglass lenses in one single pair: self-tinting spectacle lenses such as ZEISS PhotoFusion quickly darken in UV light but also rapidly become clear again if the sky is cloudy or if you are inside.

Glasses for a particular function should do more: protection, comfort and optics

Most sunglasses for runners, golfers, bicyclists and other athletes are equipped with special, strongly wrapped lenses so that the wearer's eyes are also protected from the side. When selecting these sunglasses, make sure they fit optimally, that the frames are light and that they



prevent perspiration from accumulating around your eyes. "Optics play an important role in sports," says Schierano. "Because good vision is often vital in helping you achieve your full potential, whether you're golfing, running or biking." With polarizing lenses, distracting reflections, such as from water surfaces or wet streets, are reduced. Contrast and color perception can also be improved with specially tinted lenses which more strongly absorb selected light components.

Minimal color distortion is also one of the most important criteria when choosing sunglasses. Brown tints provide you with the greatest constant color – when in doubt, consult with your optician to find the optimum tint for you.

Materials, colors and options: ZEISS makes selecting sunglass lenses easy

No matter if your lens is made of plastic or glass, has one or multiple tints, offers a mirror effect or polarization, is designed specially for sports or has a new trendy color: when selecting lenses, your best contact is your optician who can also advise you on UV protection, optical qualities and optimum fit. Consumers can visit www.zeiss.de/suntest and take the test to find out what type of sunglass type suits them best and what options are most suitable for their requirements. With three different categories, ZEISS makes it easy to choose the right customized sunglasses. **ZEISS Urban** – especially well-suited for city living, everyday life and relaxing – offers a range of colors (solid or gradient tint), modern mirror effects and is suitable for low to high light intensity. **ZEISS Drive** is designed especially for drivers and features polarizing lenses to minimize light reflections. The contrast-enhancing tint ZEISS Skylet Road is optional; ZEISS Drive is suitable for middle to high light intensity. **ZEISS Active** is intended for sports and strenuous free time activities – the lenses are especially thin and light and are also wrapped to also protect your eyes from the side. Special functional tints for different kinds of sports or other uses are available and the lenses are suitable for high to extreme light intensity. Naturally, all lenses offer UV protection.

(1) GfK 2015; OMO Optical Monitor, Winter Trends 2014/2015 March 1, 2015 – Simone Cornelsen, Giampaolo Falconio. Source: Yougov omnibus research, Feb 2015

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About ZEISS

ZEISS is an internationally leading technology enterprise operating in the optics and optoelectronics industries. The ZEISS Group develops and distributes semiconductor manufacturing equipment, measuring technology, microscopes, medical technology, eyeglass lenses, camera and cine lenses, binoculars and planetarium technology. With its solutions, the company constantly advances the world of optics and helps shape technological progress. ZEISS is divided up into the four segments Semiconductor Manufacturing Technology, Research & Quality Technology, Medical Technology, and Vision Care/ Consumer Optics. ZEISS is represented in over 40 countries and operates more than 30 production sites, over 50 sales and service locations and about 25 research and development facilities.

In fiscal year 2014/15 the company generated revenue approximating €4.5 billion with around 25,000 employees. Founded in 1846 in Jena, the company is headquartered in Oberkochen, Germany. Carl Zeiss AG is the strategic management holding company that manages the ZEISS Group. The company is wholly owned by the Carl Zeiss Stiftung (Carl Zeiss Foundation).

Further information at www.zeiss.com

Vision Care

The Vision Care business group is one of the leading manufacturers of eyeglass lenses and ophthalmic instruments. The business group develops and produces offerings for the entire eyeglass value chain that are distributed globally under the ZEISS brand. The business group is allocated to the Vision Care/Consumer Optics segment. In fiscal year 2014/15 the segment generated revenue of €1.007 billion with around 9,100 employees.