PhotoFusion® by Zeiss order at K Optical

Frequently Asked Questions

Since the introduction of photochromic plastics in the 1980's, this unique technology has continued to improve. Each successive generation of photochromic lens materials has provided wearers with greater performance and value. Now, with the launch of PhotoFusion® lenses, Carl Zeiss Vision has combined precision optics with the latest generation in self-tinting technology. PhotoFusion lenses utilize a patented chemistry that offers faster reaction speeds, greater protection from harmful radiation, and longer lasting performance.

How do PhotoFusion lenses work?

PhotoFusion lenses rely on a patented photochromic technology that reacts to the ultraviolet radiation in sunlight. This adjusts the tint of the lens automatically based upon ambient light levels. Exposure to excessive light initiates a photochemical reaction that alters the configuration of the photochromic molecules in PhotoFusion lenses. In this new configuration, the molecules absorb visible light, causing the lens to darken. Once the lenses are removed from sunlight, the photochromic molecules return to their original configuration, causing the lens to fade back to clear.

Are PhotoFusion lenses suitable for all-day wear, inside or outside?

Yes, PhotoFusion lenses are virtually clear in their faded state, making them perfectly suitable for indoor and nighttime use. Further, when exposed to sunlight, PhotoFusion lenses darken automatically as needed to maintain sufficient glare control, darkening to near sunlens density in bright sunlight.

How are PhotoFusion lenses manufactured?

A special polymer layer of photochromic napthopyran molecules is permanently bonded to the front surface of the lens blank. This photochromic layer is then sealed by an extremely durable hard coating that has been engineered to provide exceptional scratch resistance and AR coating compatibility.

Do all PhotoFusion lenses offer the same performance in all materials?

PhotoFusion lenses offer consistently excellent performance in every material, although minor differences in performance should be anticipated.

Will PhotoFusion lenses offer uniform absorption, regardless of lens thickness?

Yes, because only the molecules within a relatively uniform layer at the front surface of the lens are activated, the thickness of the lens will not significantly influence the color or density of the lens, regardless of material.

Will the photochromic properties wear or peel off the lens?

No, the unique manufacturing process used for PhotoFusion lenses permanently bond the photochromic properties to the lens substrate. The photochromic layer is then protected by an extremely durable hard coating. For comparison, the photochromic layer is over ten times as thick as a typical hard coating.

Are PhotoFusion lenses the same as Transitions® lenses?

Although the performance and visual benefits of the photochromic technology used in PhotoFusion lenses is similar , the patented technology utilized in PhotoFusion lenses relies on different photochromic chemistry that offers exceptional speed and long term performance.

PhotoFusion® Performance FAQ

Dispensing and Availabilty FAQ