

PhotoFusion® by Zeiss order at K



Performance FAQ

Photofusion is up to twice as fast as leading photochromics changing from dark to light! PhotoFusion retains its ability to change longer and at a higher level than previous products. PhotoFusion provides a higher level of both UV and Blue light radiation protection. PhotoFusion requires far less UV energy to activate enabling the lens to change rapidly to the current light conditions.

- Are PhotoFusion lenses completely clear indoors?
- Do PhotoFusion lenses reach sunglass density outdoors?
- How fast do PhotoFusion lenses darken when exposed to sunlight or fade indoors?
- How does the rate of change of PhotoFusion lenses compare to similar photochromic lenses from competitors?
- Does the color of PhotoFusion lenses remain consistent between the darkened and faded states?
- Do PhotoFusion lenses work in an automobile?
- Do PhotoFusion lenses provide ultraviolet(UV) radiation protection?

Are PhotoFusion lenses completely clear indoors?

Yes, with an average luminous transmittance of 85% (93% WITH AR), PhotoFusion lenses will appear virtually clear indoors to wearers. PhotoFusion lenses satisfy the ISO 8980-3 requirements for clear lenses.

Do PhotoFusion lenses reach sunglass density outdoors?

Yes, with an average luminous transmittance down to 9% (11% with AR) at 73 degrees F, PhotoFusion lenses will reach this density outdoors in bright sunlight. PhotoFusion lenses satisfy ISO 8980-3 requirements for dark (Category 3) lenses.

How fast do PhotoFusion lenses darken when exposed to sunlight or fade indoors?

PhotoFusion lenses respond rapidly to sunlight, reaching 20% transmittance-blocking 80% of sunlight-in seconds. PhotoFusion lenses darken up 20% faster and fade back to clear twice as fast as previous photochromic lenses offered by Carl Zeiss Vision.

How does the rate of change of PhotoFusion lenses compare to similar photochromic lenses from competitors?

PF Performance

The photochromic technology of PhotoFusion relies on special indeno-infused naphthopyran molecules that are extremely efficient, activating with minimal UV energy. This allows PhotoFusion lenses to darken and fade more quickly, since less accumulation of UV energy is required. The space surrounding these molecules has also been optimized within a more open polymer matrix, allowing molecules to change shape even more readily between their darkened and fade forms.

Does the color of PhotoFusion lenses remain consistent between the darkened and faded states?

Yes, the special photochromic chromophore molecules in PhotoFusion lenses have excellent color stability, offering exceptional color consistency between states in all materials. PhotoFusion lenses maintain either a consistent neutral gray or a pleasing brown hue.

Do PhotoFusion lenses work in an automobile?

Much of the UV radiation that activates photochromic lenses is absorbed by windshields. Fortunately PhotoFusion lenses retain more of their photochromic performance inside automobiles than the leading competitor. Nevertheless, some wearers may prefer a dedicated pair of polarized sunglasses for extended periods of driving.

Do PhotoFusion lenses provide ultraviolet(UV) radiation protection?

Yes, PhotoFusion lenses provide full ultraviolet radiation protection with 100% absorption of both UVA and UVB radiation. PhotoFusion lenses also offer significant attenuation of near-UV or "blue light" radiation up to 400 nm, which has been associated with retinal diseases.

[PhotoFusion® General FAQ](#)

[Dispensing and Availability FAQ](#)