



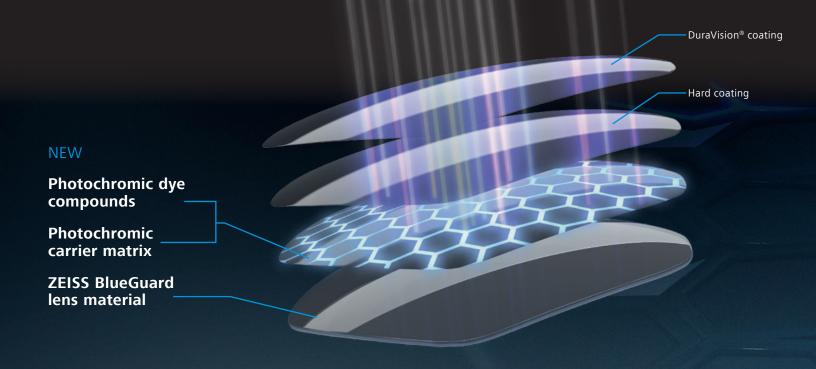
Photochromic lenses perfected

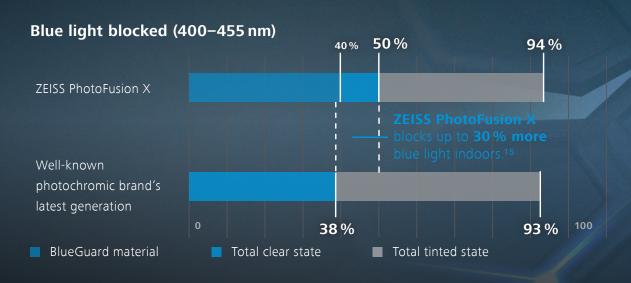
- Sunglass-level darkness outdoors
- Up to 2.5× faster fade-back indoors**
- Unique blue light and full UV protection outside and indoors

zeiss.ca/pro-photofusionx

The X-factor – patented intelligence.¹³

A new photochromic system.





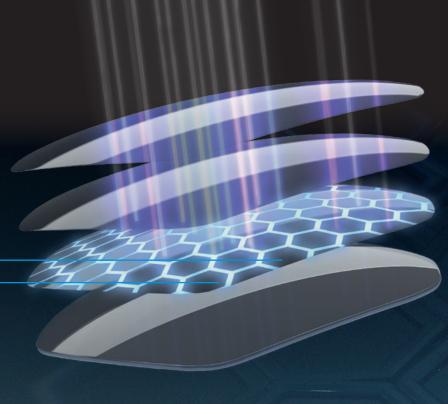
The ZEISS BlueGuard lens material already blocks 40 % of potentially harmful blue light. With the added photochromic treatment, this increases to up to 50 % indoors and up to 94 % outdoors when fully tinted.¹⁴ It also blocks 100 % UV radiation all the time.

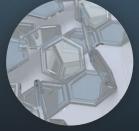
Groundbreaking speed without compromise.

Speeding up a photochromic lens' transition time usually means that the darkness of the lens will be compromised. With the PhotoFusion® X design, ZEISS scientists would simply not settle for anything less than sunglass-level darkness.

ZEISS PhotoFusion X lenses in their respective colours are as dark or even darker than the previous generation ZEISS PhotoFusion, despite clearing up to 80% faster than before.³

- New improved, faster dye compounds (each less than 0.3 nm in diameter), need very little light energy to react.
- At the same time, the new speed-optimized carrier matrix (a more spacious resin) gives the molecules more freedom to quickly fold or unfold at their maximum level of performance and still remain robust enough to deliver the toughness and durability expected from a premium lens material.





Unfolded photochromic dye molecules



Folded photochromic dye molecules

Performance perfected.

Speed X darkness X clarity X protection.

Sunglasslevel darkness – outdoors

As dark as or darker than before.6

Perfect clarity indoors

All ZEISS PhotoFusion X colours are **fully clear indoors** with up to 94% transmission.

Faster clear. Faster dark.

- Clears up to **2.5× faster** than a well-known photochromic brand's latest generation.¹
 - Clears up to **80% faster** than before.³
 - Darkens up to 60 % faster than before.4
 - Only **15 seconds** to effective glare protection.⁵

Unique blue light & UV protection

- Now with **ZEISS BlueGuard** lens material.
 - Blocks up to **50% potentially harmful blue light indoors** and up to **94% outdoors**when fully tinted.⁷
 - Full UV protection up to 400 nm at all times indoors and outdoors, clear or dark.



ZEISS PhotoFusion X

Photochromics re-envisioned.

Photochromics represent more than 11 % of all prescription lenses sold in the world and the segment is growing twice as fast as the total global lens market across all lens designs.² Today's on-the-move lifestyle, the rising number of 45 + year old progressive lens wearers and a rapid increase in the number of young wearers are driving the demand for photochromic lenses as the all-day, all-light solution for everyday wear.

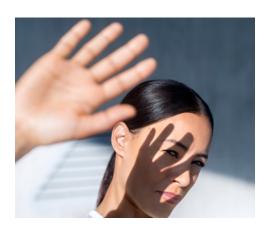
Thanks to its fast reaction speed, PhotoFusion® has been the preferred choice of many eye care professionals for over a decade. Now, in light of the growing demand, ZEISS set out to take light-reactive lenses to a whole new level – ZEISS PhotoFusion X.

With new, fast-reacting photochromic dye compounds, a new speed-optimized carrier matrix and even a new lens material, ZEISS PhotoFusion X is not merely a product update. It is photochromics re-envisioned, a product reinvented.

It is performance perfected – designed to accelerate your business.

ZEISS PhotoFusion X. What lens wearers want.

Glare protection when it's needed.



- Changing environmental light conditions challenge the human eye. When moving from indoors to outdoors, illumination can be up to 100 times higher outside, which can lead to discomfort glare.
- Swopping clear glasses for sunglasses can be a hassle. On top of that, sunglasses are not always at hand — less than 22 % of consumers actually wear their sunglasses when they need them.8
- Your customers want their lenses to be as clear as possible in dim, indoor conditions, but they also need protection from irritating glare and harmful UV radiation when they are outside.

ZEISS PhotoFusion X tints to sunglass-level darkness very fast, giving wearers the glare protection and comfort they need, when they need it.

98%

of consumers agree ZEISS PhotoFusion X is dark enough to be used as sun protection lenses.⁹

Fast fade-back to clear.



- Transition time from dark to clear is the key point of concern of photochromiclens wearers.
- For non-wearers, the key technical reason not to buy photochromic lenses is slow fade back to clear.¹⁰

Non-wearers: key technical reasons not to buy



Wearers: key points of dissatisfaction with photochromic lenses



ZEISS PhotoFusion X fades back to clear up to $2.5 \times$ faster¹ – ensuring good vision when moving from outdoors to indoors.

80%

of consumers prefer ZEISS PhotoFusion X grey over a well-known photochromic lens brand mainly because of its faster fadeback time.⁹

Blue light protection.



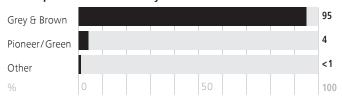
- Because our lives have become more digital, there's a big increase in the awareness of blue light and its impact on perceived digital eye strain among people of all ages. Internet searches for 'blue block glasses' are soaring, and 8 out of 10 lens wearers says it is important to protect their eyes from blue light especially indoors.¹¹
- While many photochromic products on the market may offer high levels of blue light protection when dark outdoors, not all block blue light at an adequate level in the clear state a gap that eye care professionals and their customers may not be aware of.

Colour options for everyday wear.



- Photochromics are often the main and sometimes only pair of glasses. This means that classic grey and brown tints are by far the most popular choices, because it suits most colours and styles of clothing.
- However, choice and individual appearance remains a big priority for most consumers, especially younger lens wearers.

Global photochromic sales by colour:



ZEISS PhotoFusion X with ZEISS BueGuard lens material offers the highest indoor blue light protection available in a clear ZEISS lens.

9_{out of} 10

ZEISS BlueGuard lens wearers say they feel less digital eye strain.¹²

ZEISS PhotoFusion X grey is now more neutral and tints darker. ZEISS DuraVision Flash mirrors can be added to all colours to create a unique look for the more adventurous.

94%

of consumers say the new and improved ZEISS PhotoFusion X grey is suitable to wear every day.⁹

ZEISS PhotoFusion X colours & availability.

| Rx | Grey | Brown | Extra Grey | Pioneer | Blue |
|----------------------------------|------|-------|------------|---------|------|
| 1.5 BlueGuard® | | | | | |
| 1.53 Trivex® BlueGuard® | • | • | • | • | • |
| 1.59 Polycarbonate BlueGuard® | - | • | • | | - |
| 1.6 BlueGuard® | • | • | • | • | • |
| 1.67 BlueGuard® | • | • | • | • | • |

[■] Available with ZEISS DuraVision Platinum, DuraVision Silver and DuraVision Chrome coatings.

Footnotes 1-15: Data on file. See www.zeiss.ca/pro-photofusionx for footnote information.

ZEISS PhotoFusion X

Contact your ZEISS sales agent or visit www.zeiss.ca/pro-photofusionx to learn more.

Carl Zeiss Vision Inc.

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www.zeiss.ca/vision-care

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Seeing beyond

[■] Available with ZEISS DuraVision Flash mirrors in Rx.