CRIZAL®

A CRYSTAL-CLEAR, NO-GLARE LENS

A masterpiece of clarity, durability, and protection.

*Based on EyeVote results. EyeVote is a survey of eyecare professionals conducted each year by Jobson's 20/20 and Vision Monday, the eyewear industry's leading information resource.

** (2016) Consumer study of 896 participants who purchased Crizal® lenses in connection with a promotion, conducted by Essilor.

*** (2016) Independent eyeglass wearers study of 200 participants, conducted by Dr. Han-Seok Seo at the University of Arkansas Sensory Science Laboratory and sponsored by Essilor.

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THE LEADING NO-GLARE BRAND
FOR BOTH PATIENTS AND EYECARE PROFESSIONALS

FOR PATIENT SATISFACTION, RECOMMEND CRIZAL® LENSES

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For billions of years, nature has been crafting crystals through an intricate process that combines an array of different oxides in precise quantities, producing remarkable clarity and strength. Inspired by this natural process, Essilor created its most durable and clear anti-reflective technology.

**Crizal® No-Glare lenses, redefining clarity and durability.**

Essilor Research and Development has spent countless hours perfecting *Crizal* technology on the molecular level. Our highly intricate process blends pure oxide in nanoscopic layers to provide excellent clarity. We combine natural minerals like silica and zirconium to produce an anti-reflective treatment inspired by the clarity and durability of crystal.

**OUR STRENGTHS**

- A combination of advanced technologies: anti-reflective nanolayers, embedding into the lens, and High Surface Density™ Super Hydrophobic layers.

- Focus on excellence: Each *Crizal* lens innovation is the result of a thorough R&D process, allowing us to deliver high quality lenses For The Clearest Vision Possible.”
For billions of years, nature has been crafting crystals through an intricate process that combines an array of different oxides in precise quantities, producing remarkable clarity and strength. Inspired by this natural process, Essilor created its most durable and clear anti-reflective technology. Crizal® No-Glare lenses, redefining clarity and durability.

Essilor Research and Development has spent countless hours perfecting Crizal technology on the molecular level. Our highly intricate process blends pure oxide in nanoscopic layers to provide excellent clarity. We combine natural minerals like silica and zirconium to produce an anti-reflective treatment inspired by the clarity and durability of crystal.

Crizal lenses combine technologies and nanoscopic layers to offer our best in clarity, durability, and protection. These layers are up to 50 times thinner than a strand of hair.

**Clarity**

Embedded anti-reflective layers reduce glare and allow 99% of light to pass through. A patent-pending nanolayer with Multi-Angular Technology™ further enhances clarity by reducing reflections at every angle.

**Durability**

An embedded hard coat, combined with the SR Booster™ layer, provides excellent scratch resistance. An HSD™ Super Hydrophobic layer resists smudges and makes lenses easier to clean.

**Protection**

A backside protection layer helps prevent UV rays from bouncing off the back of the lens and into the eyes while the front of the lens provides up to 100% protection* from these harmful rays. With Crizal® Prevencia®, an additional layer on the front side filters up to 20% of Harmful Blue Light**.

*With the exception of clear plastic (1.50) substrates.
**Harmful Blue Light is the blue-violet wavelengths between 415-455nm on the light spectrum, believed most toxic to retinal cells. Image represents the Crizal Sapphire® 360° UV No-Glare lens treatment stack. Thickness and order of layers is for demonstration purposes only.
IT’S ABOUT
MASTERING INNOVATION

As a pioneer in the industry, Essilor has consistently introduced new innovations to Crizal lenses, redefining the standards of anti-reflective technologies for all patients.

Creation of the No-Glare Lens
Crizal®
1997

Smudge Resistance
Crizal ALIZÉ®
2003

Scratch Resistance
Crizal AVANCE™
2009

Essential Offer for Clear Vision
Crizal easy™
2010

*Compared with Crizal Avancé UV™ No-Glare treatment and depending on the lens configuration (hard-coat, index, etc.) and manufacturing process dispersion.
**Perceived transparency based on wearers test 2017 (FR) N=50 - resulting from a better perception of anti-reflective feature.
***Through in vitro experimentation on swine retinal cells, Essilor and the Paris Vision Institute identified the wavelengths of visible light believed most toxic to retinal cells, which fall between 415-455nm on the light spectrum and peak at 435nm (blue-violet light).
MULTI-ANGULAR TECHNOLOGY WITH IMPROVED UV PROTECTION

1997
Creation of the No-Glare Lens

2003
Smudge Resistance

2009
Scratch Resistance

Harmful Blue-Violet Light Protection

2012
Backside UV Protection

2013
Harmful Blue-Violet Light Protection

2017
Multi-Angular Technology

2018
Enhanced UV Protection

IT’S ABOUT
MASTERING INNOVATION

UP TO 20% OF HARMFUL BLUE LIGHT *** IS REFLECTED
ALSO BLOCKS HARMFUL UV RAYS

30% * LATERAL REFLECTION REDUCTION FOR BEST-IN-CLASS TRANSPARENCY **

20% * FEWER FRONTAL REFLECTIONS

*Compared with Crizal Avancé UV™ No-Glare treatment and depending on the lens configuration (hard-coat, index, etc.) and manufacturing process dispersion.

**Perceived transparency based on wearers test 2017 (FR) N=50 - resulting from a better perception of anti-reflective feature.

***Through in vitro experimentation on swine retinal cells, Essilor and the Paris Vision Institute identified the wavelengths of visible light believed most toxic to retinal cells, which fall between 415-455nm on the light spectrum and peak at 435nm (blue-violet light).

As a pioneer in the industry, Essilor has consistently introduced new innovations to Crizal lenses, redefining the standards of anti-reflective technologies for all patients.
Crizal lenses are worn by millions of people around the world.

There’s a Crizal technology for every patient, every need, and every lifestyle.

Crizal lenses combine technologies and nanoscopic layers to offer our best in clarity, durability, and protection. These layers are up to 50 times thinner than a strand of hair.

**Clarity**
Embedded anti-reflective layers reduce glare and allow 99% of light to pass through. A patent-pending nanolayer with Multi-Angular Technology™ further enhances clarity by reducing reflections at every angle.

**Protection**
A backside protection layer helps prevent UV rays from bouncing off the back of the lens and into the eyes while the front of the lens provides up to 100% protection from these harmful rays. With Crizal® Prevencia®, an additional layer on the front side filters up to 20% of Harmful Blue Light.*

**Durability**
An embedded hard coat, combined with the SR Booster™ layer, provides excellent scratch resistance. An HSD™ Super Hydrophobic layer resists smudges and makes lenses easier to clean.

Harmful Blue Light is the blue-violet wavelengths between 415-455nm on the light spectrum, believed most toxic to retinal cells. *In a clear lens.

E-SPF is an index rating of the overall UV protection of a lens. E-SPF was developed by Essilor International and endorsed by third-party experts.
For billions of years, nature has been crafting crystals through an intricate process that combines an array of different oxides in precise quantities, producing remarkable clarity and strength. Inspired by this natural process, Essilor created its most durable and clear anti-reflective technology.

Crizal® No-Glare lenses, redefining clarity and durability.

Essilor Research and Development has spent countless hours perfecting Crizal technology on the molecular level. Our highly intricate process blends pure oxide in nanoscopic layers to provide excellent clarity. We combine natural minerals like silica and zirconium to produce an anti-reflective treatment inspired by the clarity and durability of crystal.

Crizal AVANCE™
- Reduces glare
- Resists scratches
- Repels dust
- Repels water
- Resists smudges
- Optimal UV protection
- Best in Cleanability and Scratch Resistance

Crizal ALIZÉ™
- Reduces glare
- Resists scratches
- Repels water
- Resists smudges
- Comprehensive UV protection

Crizal easy™
- Reduces glare
- Resists scratches
- Repels water
- Resists smudges
- Comprehensive UV protection
- Everyday Essential No-Glare Lens

The E-SPF index relates to lens performance only and excludes direct eye exposure that depends on external factors (wearer's morphology, frame shape, position of wear).
FOR PATIENT SATISFACTION, RECOMMEND CRIZAL® LENSES

THE LEADING NO-GLARE BRAND
FOR BOTH PATIENTS AND EYECARE PROFESSIONALS

9/10 consumers would purchase Crizal No-Glare lenses again**

4/5 consumers prefer Crizal No-Glare lenses over ordinary lenses***

VOTED READER’S CHOICE*
most favorite AR brand nine years in a row!

<table>
<thead>
<tr>
<th>BRAND</th>
<th>Clarity</th>
<th>Durability</th>
<th>UV Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crizal SAPPHIRE®360°UV</td>
<td>⭐⭐⭐⭐⭐</td>
<td>⭐⭐⭐⭐⭐</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Crizal AVANCE®UV™</td>
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<td>⭐⭐⭐⭐⭐</td>
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<tr>
<td>Competitor A</td>
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<tr>
<td>Competitor B</td>
<td>⭐⭐⭐⭐</td>
<td>⭐⭐</td>
<td>⭐</td>
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</tbody>
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Clarity is a function of light passing through the lens, glare reduction, and reflections on the surface of the lens. Durability is defined as durability of the AR (top coat) over time, and includes cleanability in terms of micro-scratches from heavy pressure/repeated cleaning. UV protection factors in lens technology that protects the wearer from UV rays coming in from the front AND bouncing off the back of the lens.

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