دی مرجان للبصريات

DMARJAN OPTICALS

Annual capacity

- TAC polarized lens: 15,000,000 pairs;
- PC lens: 7,000,000 pairs;
- Nylon lens: 7,000,000 pairs;
- Tritan lens: 7,000,000 pairs;

International standard

- ANSI Z80.3:2018
- EN ISO 12312-1:2013 (A1:2015)
- AS/NZS 1067.1:2016
- FDA report
- CE report
- REACH report
- ROHS test report
- Bisphenol report
- ISCC PLUS (International Sustainability and Carbon Certification)

Test reports:

- Drop ball impact resistant test
- Hardness test
- Steel wool test
- Chemical resistant test.
- Haze test
- QUV test
- Constant water bath apparatus test

Company Profile

Founded in 2004 and located in Shenzhen, Specialized in the production of polarized sunglasses lens , TAC polarized lenses, PC lenses, TR90 lenses and the new Copolyester (TRITAN) lenses.

NYLON

Nylon called polyamide, is a memory plastic material. It has Superior optical features, high refractive index, Ideal ABBE value, extremely flexible. It can be used in all kinds of frame material and complex design. It can be produced in dyeing lens, REVO coating lens. Very fashionable and personalized. Many famous brand sunglasses are choosing it.

FUNCTIONS	MATERIAL	PC	TR18 TRITAN™	CR39	NYLON TR90
	WEIGHT	1,2	1,19	1,32	1,15
	REFRACTIVE INDEX	1,585	1,56	1,56	1,516
	ABBE NUMBER	31	31	58,5	45
	IMPACT RESISTANCE INDEX	GOOD	GOOD	FRAGILE	GOOD
	MOUNTED ON ACETATE	NO	YES	YES	YES
	TOUGHNESS	HIGH	HIGH	FRAGILE	HIGH
	STRESS	HIGH	MID	NO	SMALL
	DRILL	NO	YES	NO	YES
	PRICE	LOW	MID LOW	MID UP	HIGH
	BPA	YES	NO	NO	NO
	TINCT	YES	YES	YES	YES

TR18 Tritan™ is a new generation copolyester (whitout bisphenol-A) to replace PC, CR39 and Nylon TR90.

After TR18 Tritan™ being used as lens raw material, it shows its high index of refraction and highly impact resistance, this character is very closed to Nylon TR90.

Normaly drilling and reverse groove is forbiddden because of cracking, Crystal-Star has solved this problem.

Base on cheaper price, TR18 Tritan™ will be widely used in optical industry.

TR18 Copolyester (Eastman Tritan™)
Sun lenses

- Can be cut and drill with holes as nylon lens
- Haze lens 2%
- Transmittance 91%
- Refractive index 1,5651
- Abbe number 31
- Price 45 % cheaper than nylon lens
- Price 5-10 % cheaper than CR39 lens
- Can be mounted on acetate frames
- BPA free

TRITAN™

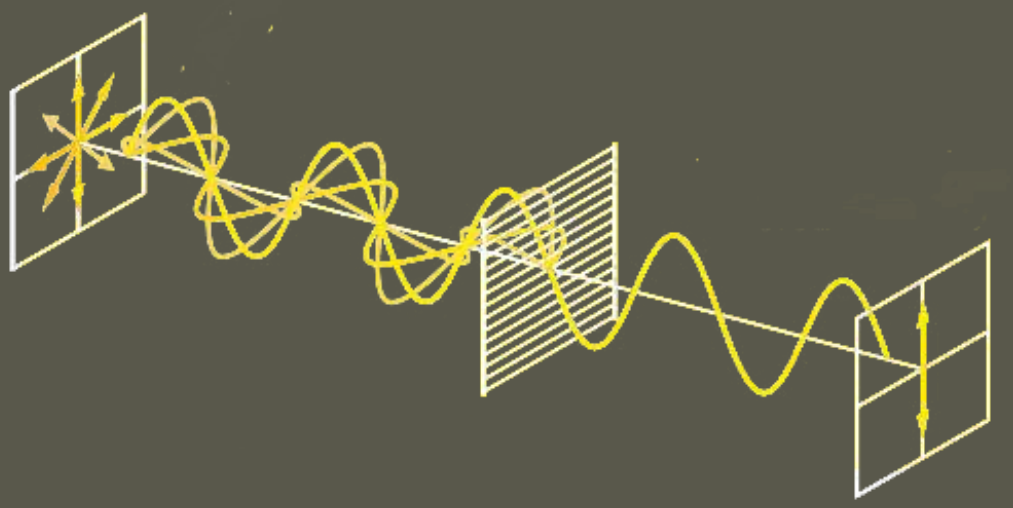
TRITAN™ RENEW

Tritan Renew is powered by a recycling technology that transforms single-use waste into basic building blocks that are then used to make durable, high performance, food-safe materials. This process offsets the use of fossil fuels and lowers greenhouse gas emissions.

Tritan Renew is the same BPA-free material, revitalized through innovative recycling technologies. Tritan Renew is enabled through a the process that breaks down waste plastic back into its basic chemical building blocks, allowing plastic materials to be recycled.

Sunlight scatters in all directions, but when it strikes flat surfaces, the reflected light tends to become polarized, meaning the reflected rays travel in a more uniform (usually horizontal) direction. This creates an annoying, sometimes dangerous intensity of light that can reduce visibility, called glare.

Polarized sunglasses are known for their ability to block the glare that reflects off of certain surfaces.

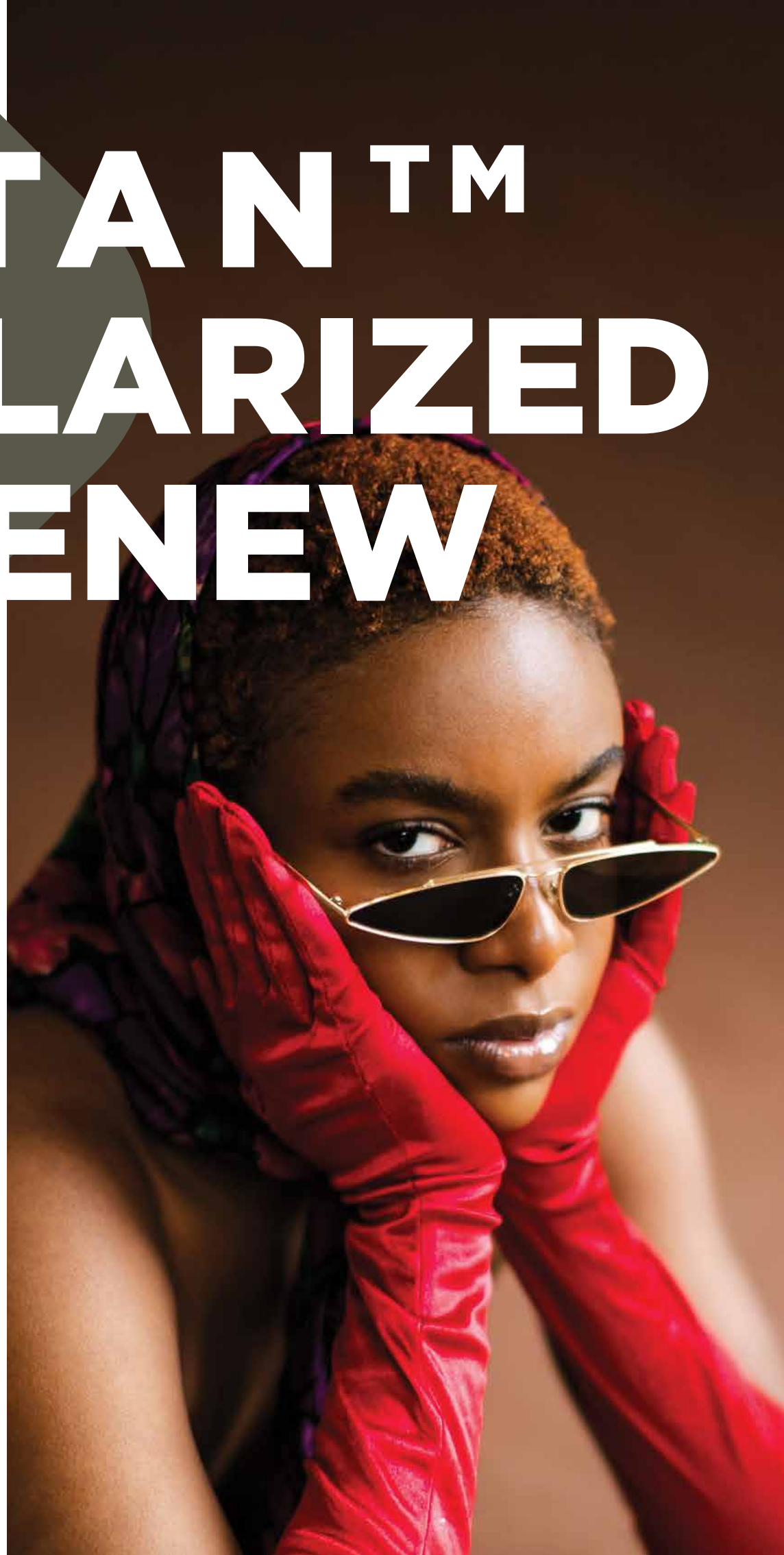


TRITAN™ POLARIZED

TRITAN™ POLARIZED RENEW

Tritan Renew conveys all the performance and safety of virgin materials while meeting sustainability standards. It reduces the amount of plastic going into the waste stream without compromising function or aesthetics.
Tritan Renew provides with a material that boasts as much as 50% certified recycled content, certified using ISCC mass balance.

The polarized sunlenses feature a special filter, fittingly called polarized, that works a bit like a micro blind: many small fissures that allow natural light to pass, but block reflected rays. This allows to reduce the glare, giving to the eyes a more comfortable and less dangerous vision.



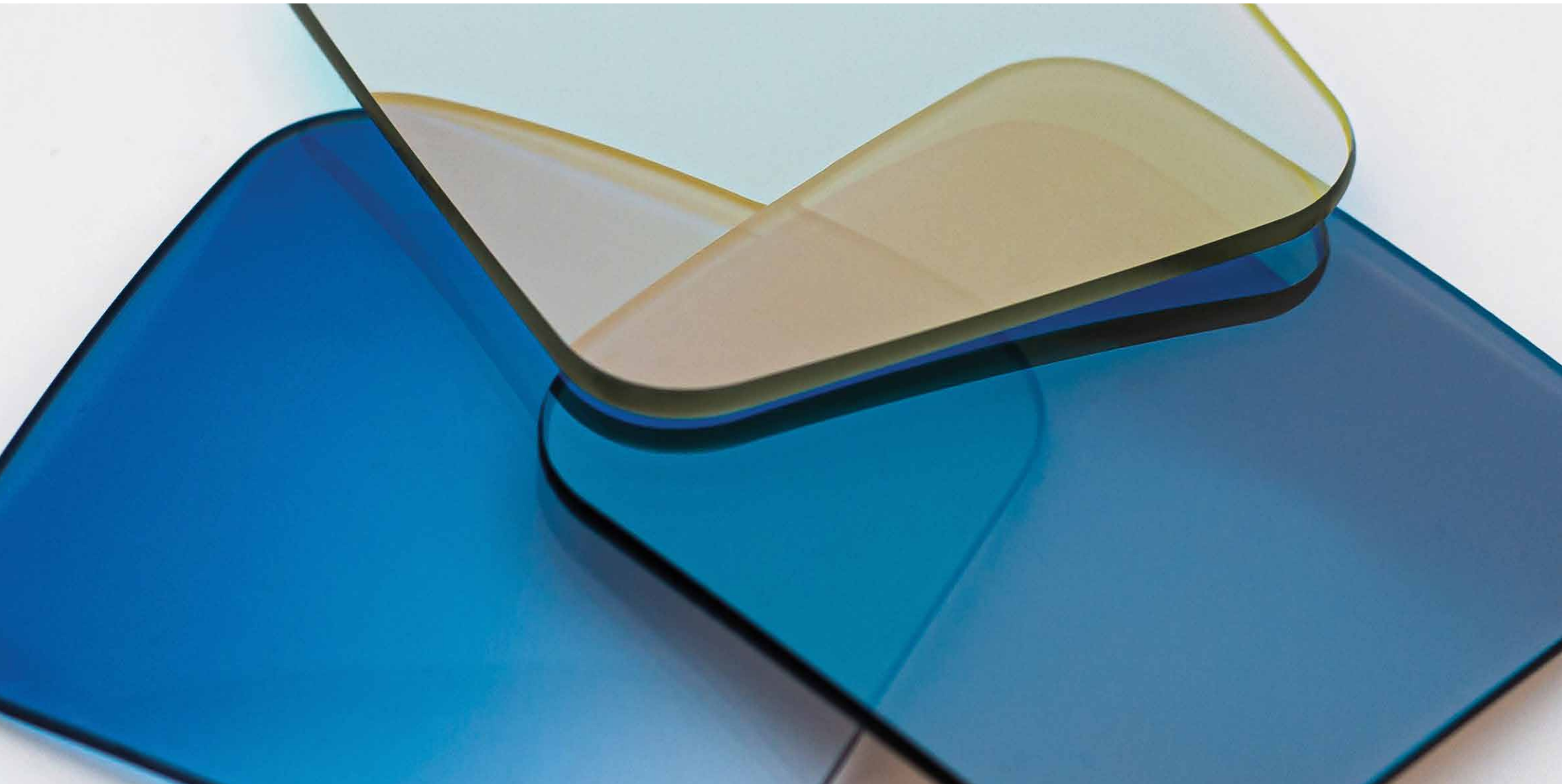
BIODEGRADABLE 100%

DEMO

BIO Demo Lens are produced according to the certification schemes “Products made of compostable materials” – Seedling (2020-01) and DIN EN 13432:2000 standard in connection with ASTM D 6400:2019 and “Products made of compostable materials” – DIN-Geprüft (2021-07) and DIN EN 13432:2000 standard and “BPI Commercial Compostability Certification scheme -2.3 Compostable products, resins, and intermediates according to ASTM D6400 and ASTM D6868” (2021-10) and ASTM D 6400:2019 standard and “REAL Industrially Compostable Products” (2020-09) and BS EN 13432:2000 standard.

PC LENS

PC called polycarbonate is thermoplastic material. Because of strong impact resistence, not easy to break and impact, it’s widely used in sports eyewear, industrial safety eyewear and kid’s eyewear. PC is regarded as the most safe lens.



With temperature resistance up to 100°, the superpolarized lenses are extremely adaptable to various evironments.

Its lamination is non-adhesive, non-absorbent and highly resistant to delamination. Dimensional stability features define its water low absorption.

New and better processing performance such as coating and cutting, that cause the lenses' better impact resistance.

SUPER POLARIZED

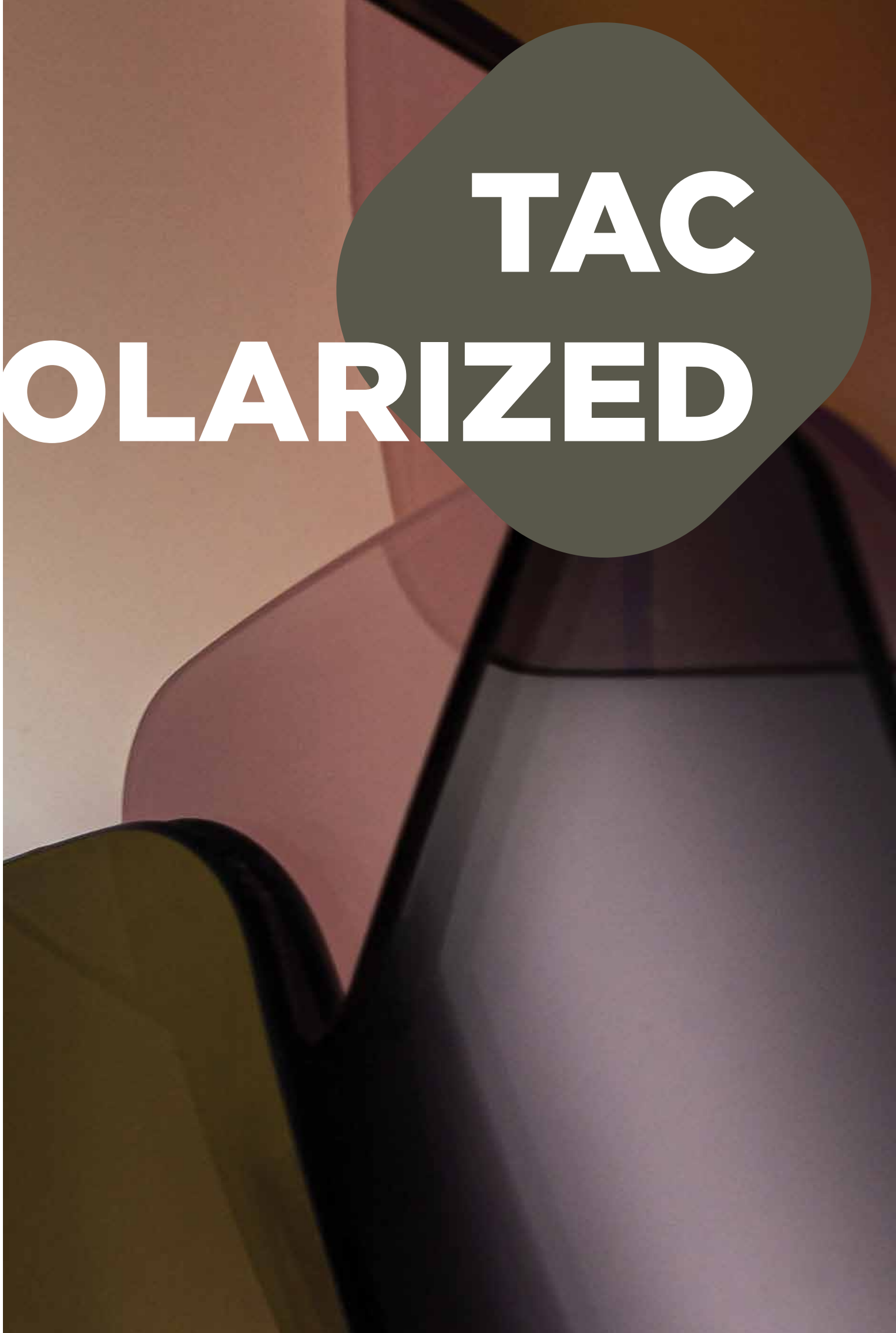
PC LENS POLARIZED

Polarized lenses have a special chemical applied to them to filter light. The chemical's molecules are lined up specifically to block some of the light from passing through the lens.

On polarized sunglasses, the filter creates vertical openings for light. Only light rays that approach your eyes vertically can fit through those openings. The lenses block all the horizontal light waves bouncing off a smooth pond or a shiny car hood, for instance.

TAC POLARIZED

The material of TAC is called Cellulose Triacetate. The polarized working principle is Daylight travels in waves oscillating in all directions of the three-dimensional space when daylight strikes a non-metallic face suchs water, it get polarized and mostly moves in two dimensions: horizontally and vertically, Vertical light brings useful information to the human eye, enabling us to see colors and contrasts, while horizontal light creates glare, this distancting glare can be selectively blocked only by a good quality polarized filter. Polarized lenses selectively filter out the horizontal light, and eliminating glare.



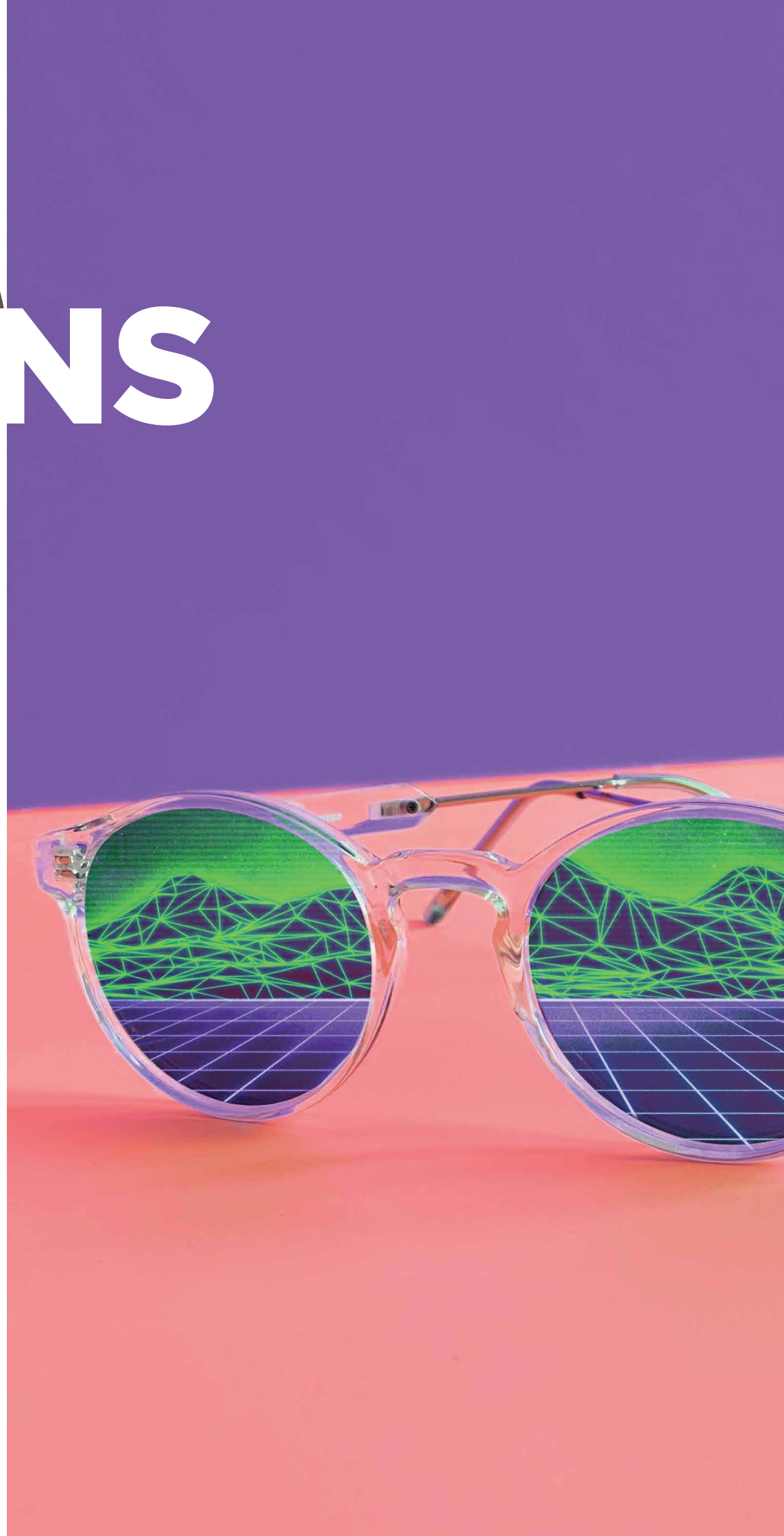
3D LENS

Circular Polarized Glasses Lens suit for all kinde of circular polarized cinemas. TV. Computer etc.

Linear Polarized Glasses Lens suit for IMAX cinemas and linear album.

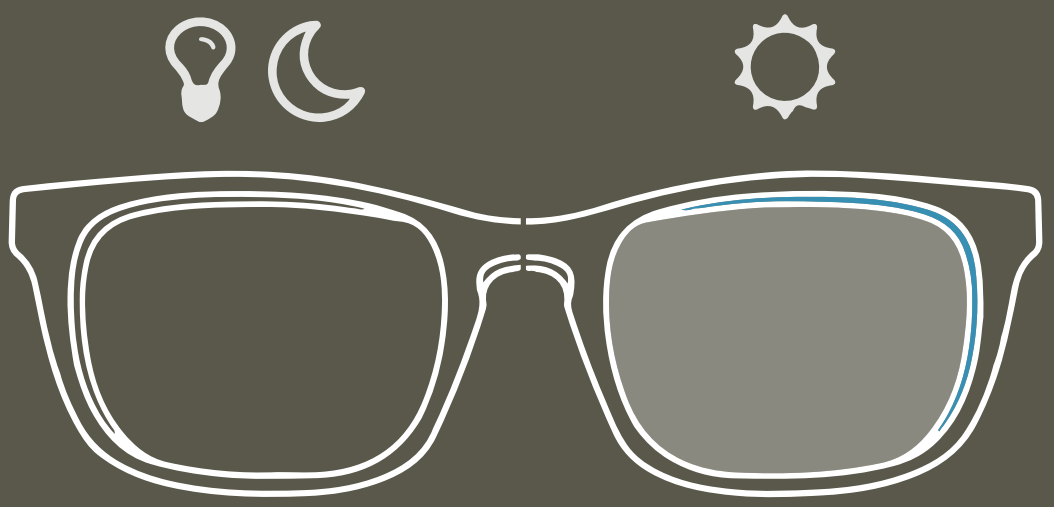
Both thickness can be 0.18 mm-1.0mm.

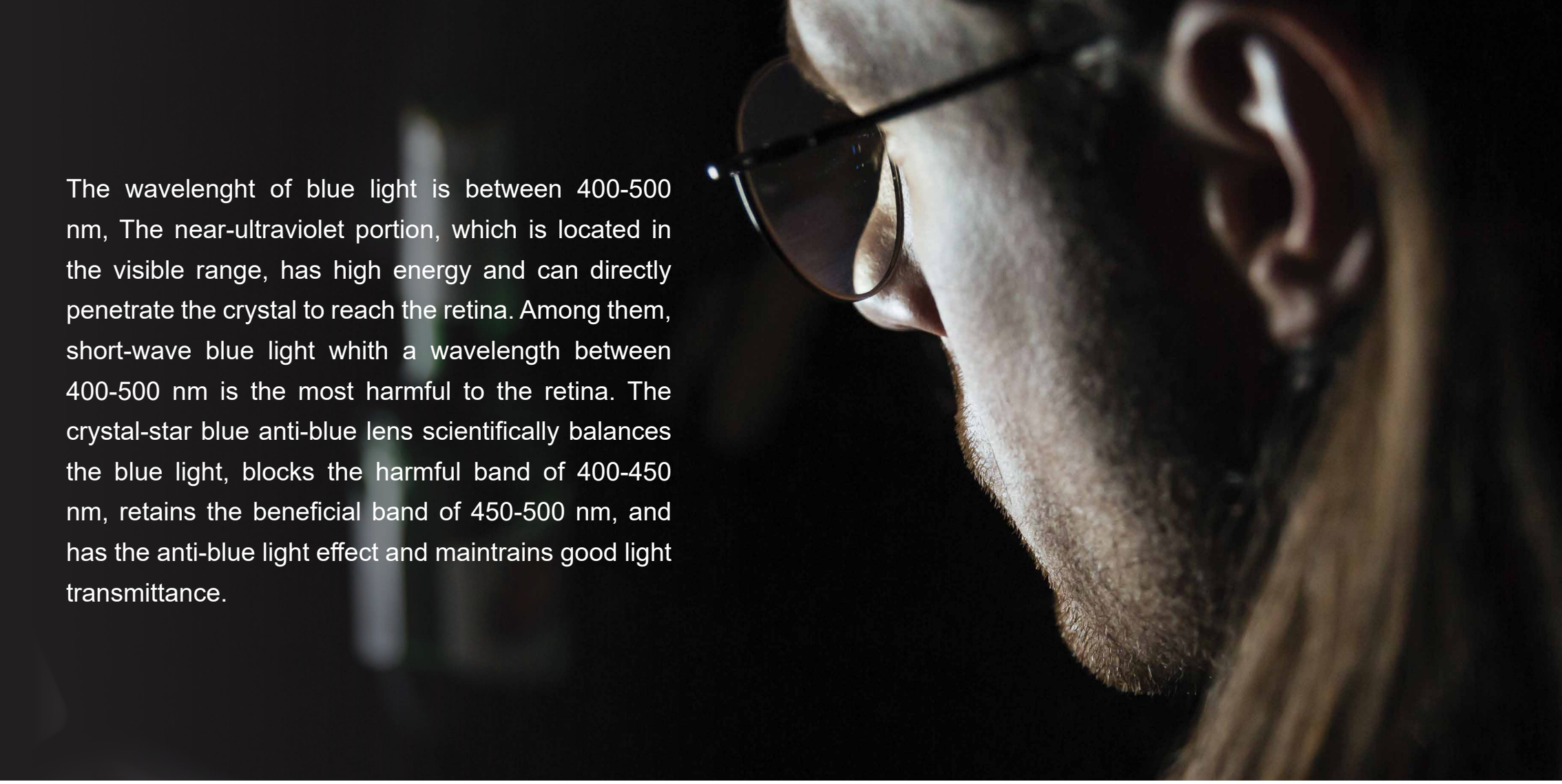
More than 0.3mm can add HC coating.



PHOTOCROMIC LENS

The principle of a color-changing lens is mainly a special chemical reaction that relies on ultraviolet light. Due to the silver halide and copper oxide containing the discoloration factor in the lens the molecules will undergo a chemical process under light conditions, causing their shape to change, decomposing tiny grains of silver and halogen, and the new molecular structure will absorb a part of visible light. Thereby the color of lens change from light to dark. When in a relatively dark environment, these molecules quickly return to their original structure. Silver and halogen regenerate silver halide under the catalysis of copper oxide, thus losing the characteristic of absorbing light, so the color of the lens changes from dark to light.



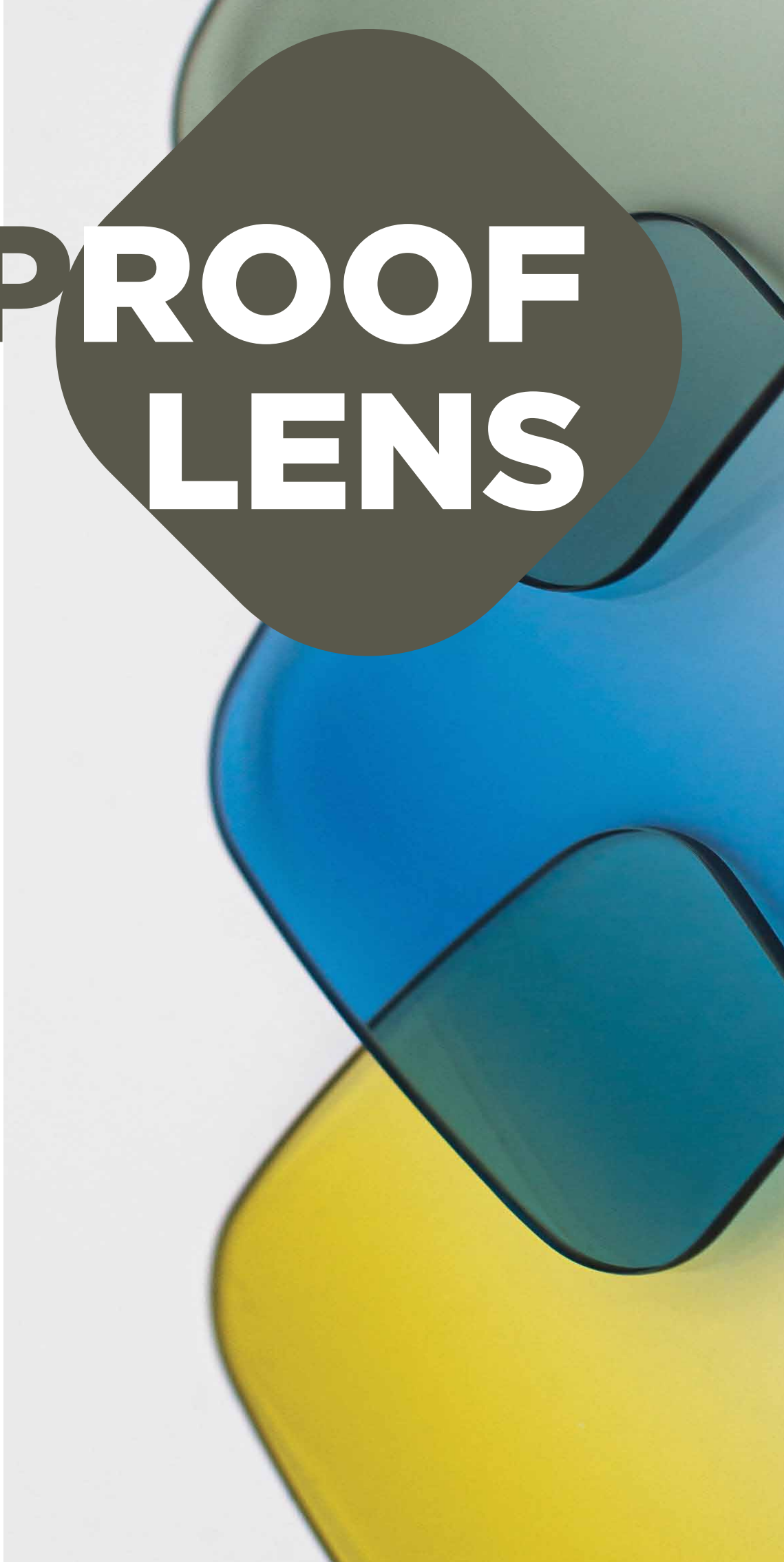


The wavelenght of blue light is between 400-500 nm, The near-ultraviolet portion, which is located in the visible range, has high energy and can directly penetrate the crystal to reach the retina. Among them, short-wave blue light whith a wavelength between 400-500 nm is the most harmful to the retina. The crystal-star blue anti-blue lens scientifically balances the blue light, blocks the harmful band of 400-450 nm, retains the beneficial band of 450-500 nm, and has the anti-blue light effect and maintrains good light transmittance.

ANTI-BLUE LIGHT LENS

WATERPROOF LENS

Crystal-star waterproof and Oleophobic lens adopts advance coating technology to enhance the smoothness of the lens surface and reduce the surface tension of the lens. The liquid such as oil and water falling on the surface of the lens can be contacted into a bead shape, and the frictional contract with the surface of the lens is reduced, and the blade is automatically slid down. Water stains, oil stains, sweat and other stains can also be easily whiped clean, reducing scratches and improving the life of the lens. Because of this oleophobic coating, it can block the corrosion of seawater to a certain extent and improve the seawater resistence of the coated lens.



CSPL LENSES

CSPL lenses boast a superior production process with advanced equipment, employing a multi-layer lamination technique using only the finest raw materials. Setting a new standard in clarity, hardness, temperature resistance, and anti-deformation, the CSPL lenses outshine competitors in every aspect. The polarization feature surpasses industry norms, ensuring an unparalleled visual experience. Elevate your eyewear game with CSPL, where cutting-edge manufacturing meets perfection.

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