



OUTDOOR FASHION MEETS YOUR VISION

Rx Lenses for top branded sunglasses

- Outdoor vision correction with superior clarity
- Fits all brands of sunglasses
- High contrast & glare protection
- Available in Single Vision and Progressive



- High-quality with 100% UVA & UVB protection
- Advanced Digi-Contoured Prescription lenses available

NORTH AMERICA | EUROPE | AUSTRALIA | ASIA



BENEFITS OF Rx SUNGLASSES



[01 VISION CORRECTION]

Rx Sunglasses are sunglasses with your own corrective prescription built into the lenses. Prescription sunglasses are great if you have a refractive error: they can protect your eyes from the sun and glare while enabling you to see clearly.



NORMAL SUNGLASS LENSES



Rx SUNGLASS LENSES



[02 UV PROTECTION]

Rx Sunglasses lens coated with premium quality coating which protect your eyes from harmful UV rays.



NORMAL UNCOATED SUNGLASS LENSES



Rx SUNGLASS UV COATED LENSES



[03 ANTI GLARE]

If you spend a lot of time outdoors, polarised sunglasses are particularly effective. They eliminate glare from horizontal surfaces such as water, roads, pavements, snow, sand and reflective surfaces such as car exteriors.



NORMAL SUNGLASS LENSES



Rx LENSES WITH ANTI GLARE COATING



Last but not the least is

[04 FASHION]



Emerging Market – Sport and Personalised vision goes hand in hand!

We live in a time where sports are no longer just a leisure activity for a marginal group. Sports today have become a trend, enjoyed by a large group of the population, both young and old.

Market research has shown that worldwide around 2/3rd of the population over the age group of 15 years regularly take part in sport activities. Around 60% of this group needs vision correction.

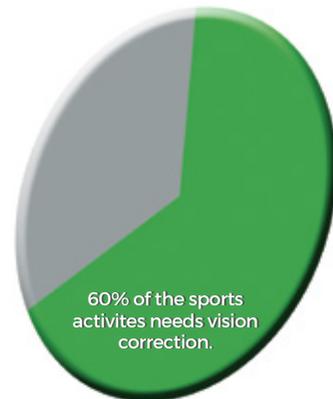
People involved in sport activities are generally, dynamic, fashionable. They look for comfortable vision with equal importance to cosmetics and wide choice of frames.

Nova Sun & Sport lens tailored to meet the present needs!

Nova Sun & Sport lens is tailored to meet the correct visual needs for sport activities and is designed for wrap around frames with high curvature.

If one chooses a sport eyewear with high base curve one has to compromise in optics. Further if perfect optics is considered to be priority then one has to choose normal flat frames which are not ideal for sport activities.

Nova Sun & Sport lenses offers perfect vision with perfect cosmetics.



OPPORTUNITY OF
Rx SUN & SPORT LENS



Nova Sun & Sport for Active People

Nova Sun & Sport is specially designed for corrective lenses for wrap around frames. It is now possible to have excellent vision with high curvature frames.

Gone are the days when clip-on lenses hindered the wearer's vision or butted against the eyebrows. Athletes, no longer need to turn to contact lens to improve vision and eliminate blind spots. This is especially important for fast-action sport, like water & motor sport.

Basically three different frame version for sport eyewear are established in the market:

- *Sun & Sport eyewear for lenses with very curved front surface.*
- *Sun & Sport eyewear for lenses to be clipped into frames (clip-ins)*
- *Sun & Sport eyewear for lenses with a normal curved front surface.*

All three frame versions share a common feature: the position of the lens in the front of the eyes differs from that of normal prescription spectacles.

Conventional lenses for Sun & Sports eyewear are generally less suitable since aberrations occur due to the high curvature i.e slanted position of the lenses. There occurs are inherent and power because of the high curvature of the lenses, and also creates a prismatic error. This in turn results into:

- *Incorrect vision or power deviation.*
- *Acute headache because of swim and sway.*
- *High distortion particularly at the periphery.*
- *Lack of comfort.*
- *Lens tilt induces decentration.*
- *Prismatic effects are present at the point of reference.*



SPECTACLE FOR DAILY USE



WRAP AROUND FRAMES FOR SPORT ACTIVITIES

BRANDED SUNGLASSES

Consumers who are opting for branded Sunglasses, unable to avail Rx Solution along with it, due to non-availability.



Customized prescription lenses are the solution. Individually manufactured to meet most prescription needs. Nova Sun & Sport provides good vision. Taking the following factors into considerations:

- *Prescription (sphere, cylinder, axis, prism)*
- *P.D.*
- *Fitting height (in case of Nova Sun & Sport)*
- *Lens Data (refractive Index, centre thickness, base curve of the demo lens, diameter of the blank)*
- *Frame Data (Lens size - A & B height, Distance between lenses - DBL and Facial wrap).*

Advanced Freeform Technology – Nova Sun & Sport

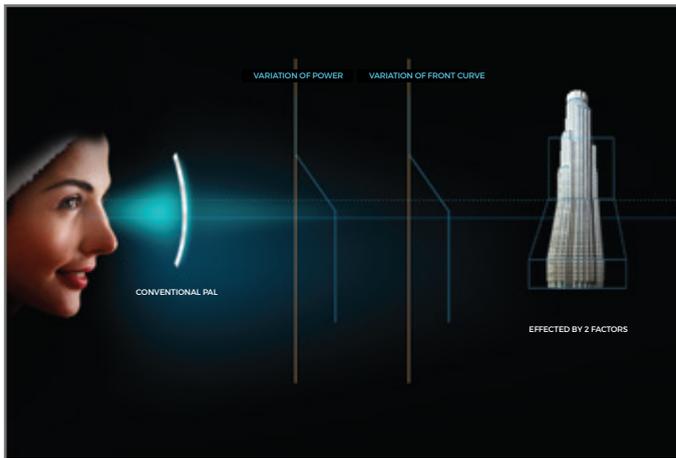
Nova Sun & Sport is specially designed for wrap-around frames and sunglasses. Nova Sun 7 Sport are made using Freeform technologically advanced patented 100% back-surface design.

- *The patient's entire prescription is 3-dimensionally fused into the back surface of the lens.*
- *This completely eliminates front curve distortion providing total control of marginal astigmatism and power error*
- *The magnification difference between the visual areas on the lens is greatly reduced.*
- *The centre thickness and edge thickness are greatly reduced due to the back-surface design, hence giving extremely flat lens for any given power.*
- *The optical aberrations like spherical aberrations, astigmatism and distortion are minimized at the worn position.*

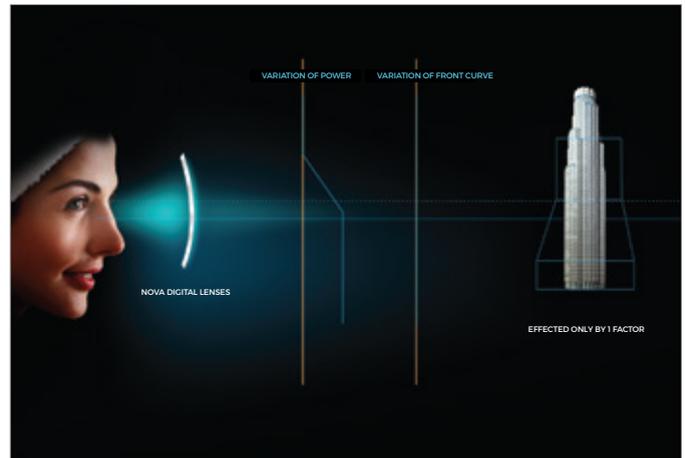
FEATURES OF NOVA SUN & SPORT LENS

[01 BACK SURFACE DESIGN]

Nova Sun & Sports lenses are made using technologically advanced patented 100% back surface design.



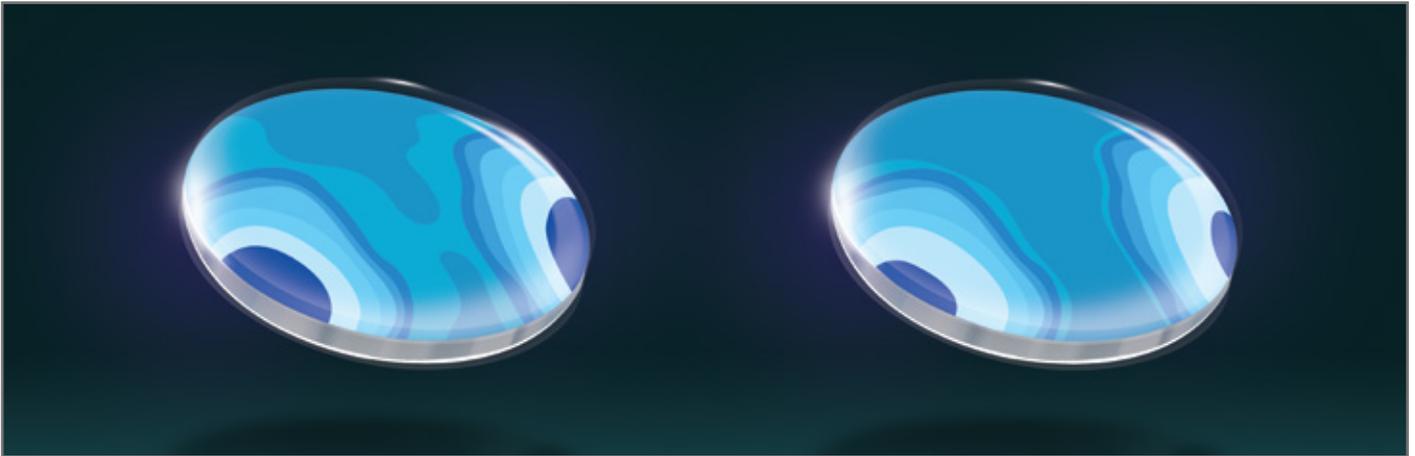
MECHANISM OF CONVENTIONAL LENSES



MECHANISM OF NOVA SUN & SPORT LENSES

[02 DIGI CONTOUR TECHNOLOGY]

High contrast image with wider field of vision - upto 30% compared to conventional lens. Remarkable clear image without distortion in the peripheral areas due to less astigmatism.



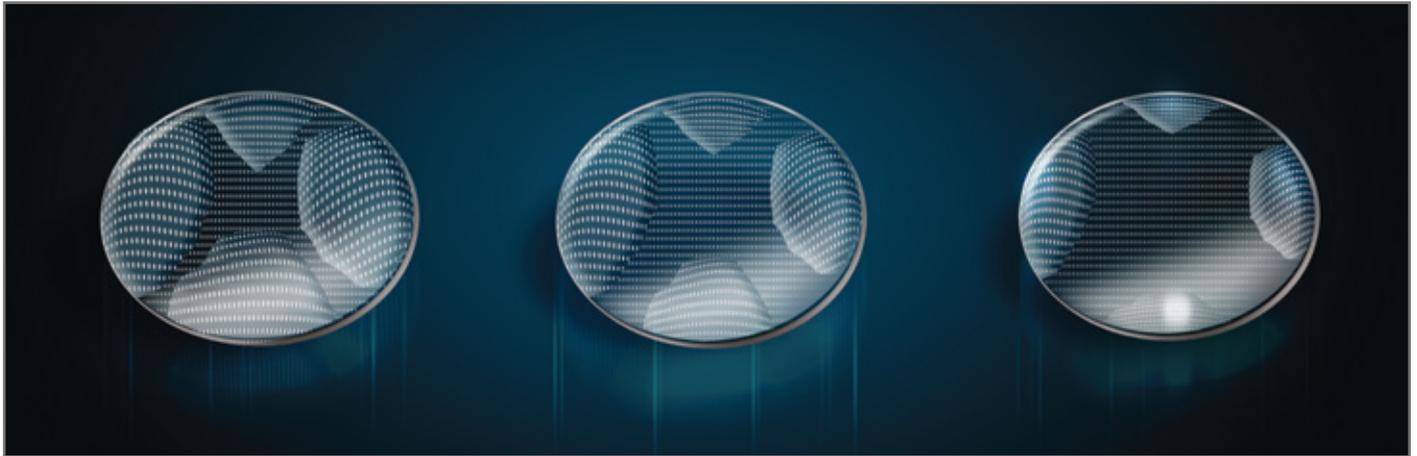
CONVENTIONAL LENSES

NOVA SUN & SPORT LENSES

[03 ABERRATION FILTER]

In Aberration Filter System, with high precision optimization of power characteristics and selective design, aberrations and distortions are greatly reduced.

Nova Sun & Sport has Aberration Filter System with which it is possible to correct spherical aberration and astigmatic distortions to a great extent.



SPHERICAL LENS

ASPHERICAL LENS

MULTI ASPHERICAL LENS

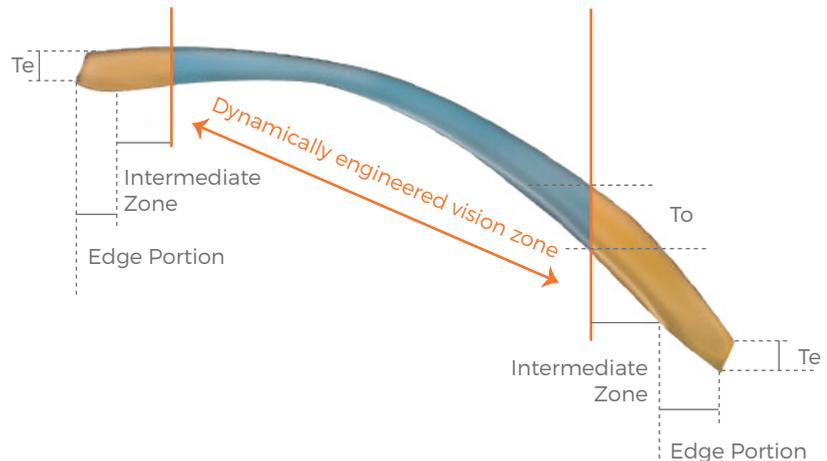
[04 THINTECH LENS]

Patented Design

A Thin-Tech Lens Design file has a patented dynamically engineered vision zone to create the best visual performance .

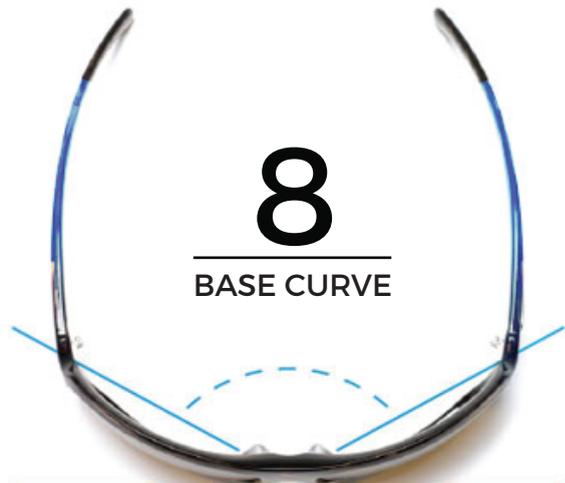
While the intermediate and edge zones incorporated as patented smoothing algorithm that makes the edge portion substantially thinner, while maintaining a wonderful visual performance .

- *Custom-Designed with Lens Power Compensation for the “position of wear”*
- *THIN-TECH Lens design takes into consideration the customers lens prescription and frame parameters to optimize the best visual solution.*
- *The vision experienced by the wearer is clear in every direction of sight.*
- *With Thin-Tech Lens technology, it's possible to offer a significant reduction of lens center/edge thickness while maintaining visual performance.*



[05 HIGH BASE
CURVE 6 & 8]

High Base curve lens is the need of this hour. As all wrap around frames for sports & lifestyle now days are signified by high curvature. Base curve 6 & 8 marks a best fit to almost all types of sports/sunglasses frames.



NOVA SUN & SPORT LENS MATERIALS

NUPOLAR[®]

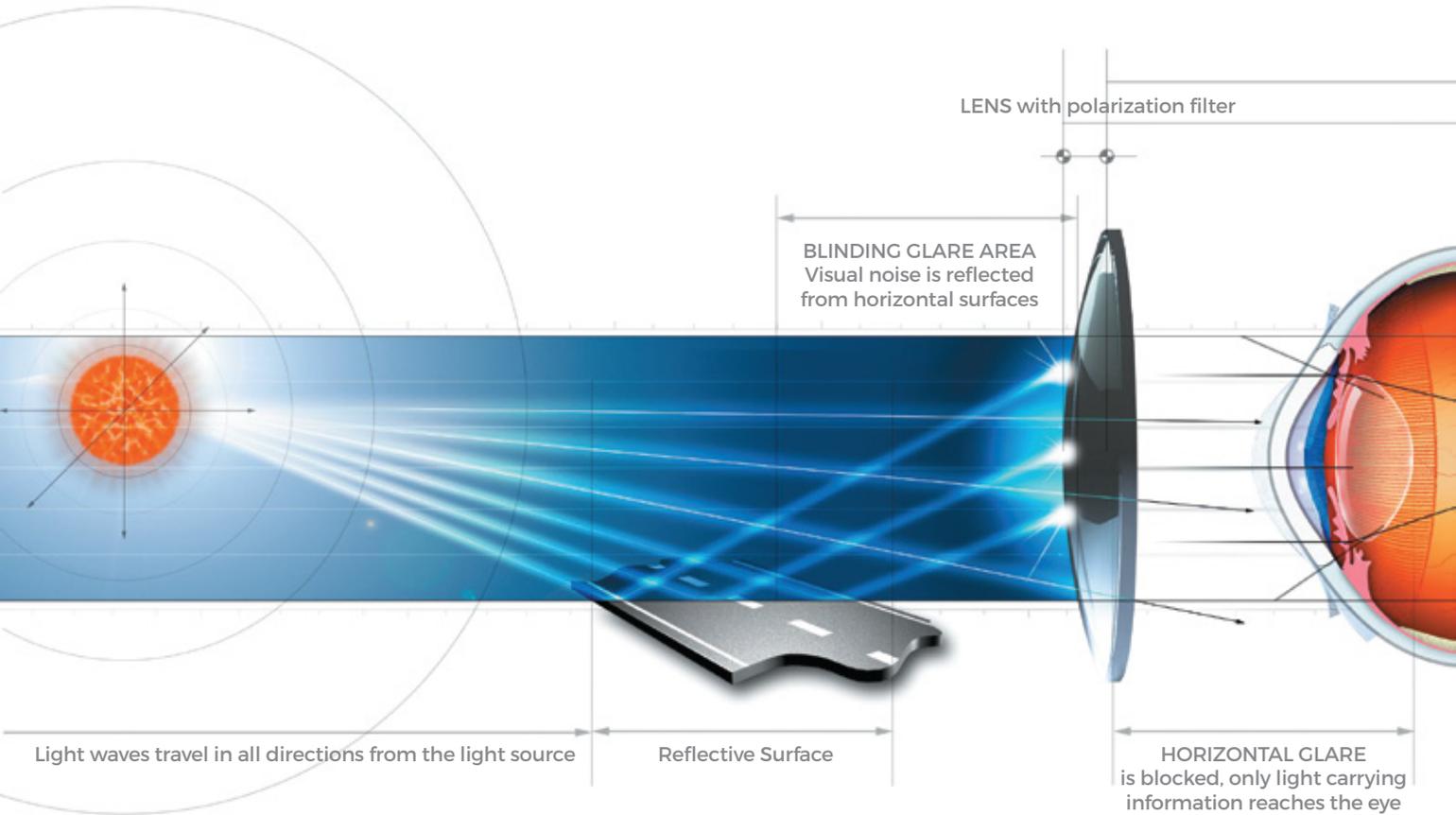
polarized lenses

 **DRIVEWEAR[®]**

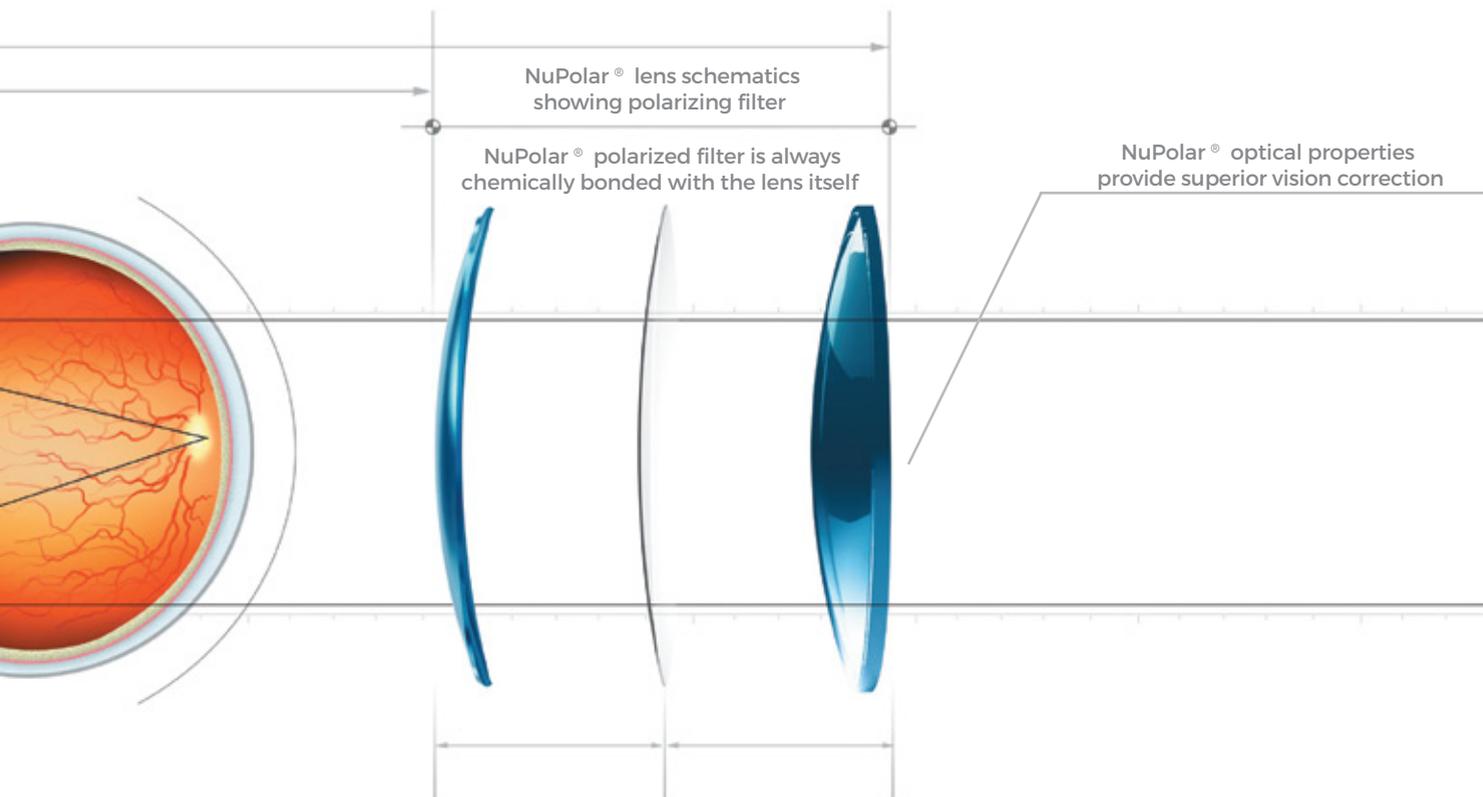
ACTIVITY TINT RANGE

[PHOTONIC SCIENCE]

HOW BLINDING GLARE IS CREATED



AND HOW IT IS ELIMINATED BY A POLARIZED LENS



AXIS ALIGNMENT

Axis alignment is crucially important to polarized eyewear performance. To produce maximum efficiency, the filter must be align accurately along the 0-180 axis.

AVAILABILITY

wide range of materials, styles and colors

THINNESS

All NuPolar® lenses are designed to minimize both center & edge thickness of the lens.

UNIQUE HEAT RESISTANT POLARIZER

Retains polarization & color consistency through all types of secondary processing (such as AR).

OPTICS

NuPolar® lenses will eliminate blinding glare, but as in any lens strict optical power standards must be maintained. The prescriptions have been carefully assessed and the lens will accurately reflect that.

FILM PLACEMENT TECHNOLOGY

The Polarised film must be alligned accurately with the front & the back surface of all lenses types including complex progressive lenses.

TRANSMITTANCE

NuPolar® lenses are premium quality sun lenses, for daylingt driving block glare effienctly and offer 100% UV protection against potentially harmful UV A and UV B.

HIGH EFFICIENCY POLARIZER

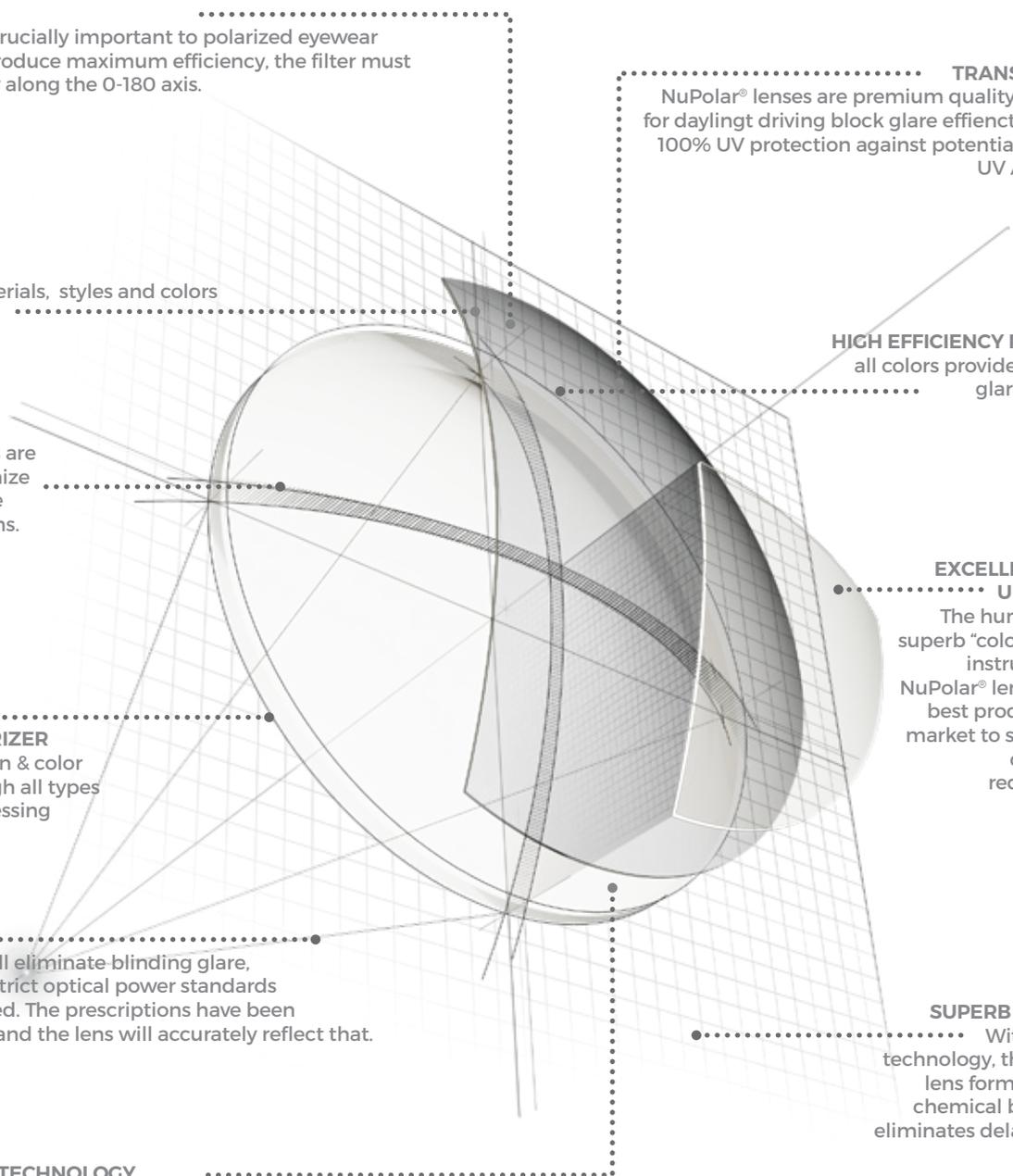
all colors provide maximum glare reduction

EXCELLENT COLOR UNIFORMITY

The human eye is a superb "color matching instrument" and NuPolar® lenses are the best product on the market to satisfy these demanding requirements.

SUPERB ADHESION

With NuPolar® technology, the film and lens form an integral chemical bond which eliminates delaminations.



RANGE OF POLARISED COLOURS

NUPOLAR[®]

polarized lenses



Yellow



Oxford Blue



Ultramarine



Polar Grey 85



Mulberry



Electric Indigo



Drivewear Brown



NuPolar Grey 1



NuPolar Grey



Mirror CTG



Blue



Supershield Blue



Green



NuPolar Green



Supershield Red



A.O. Tangerine



I-Lime



I-Grape

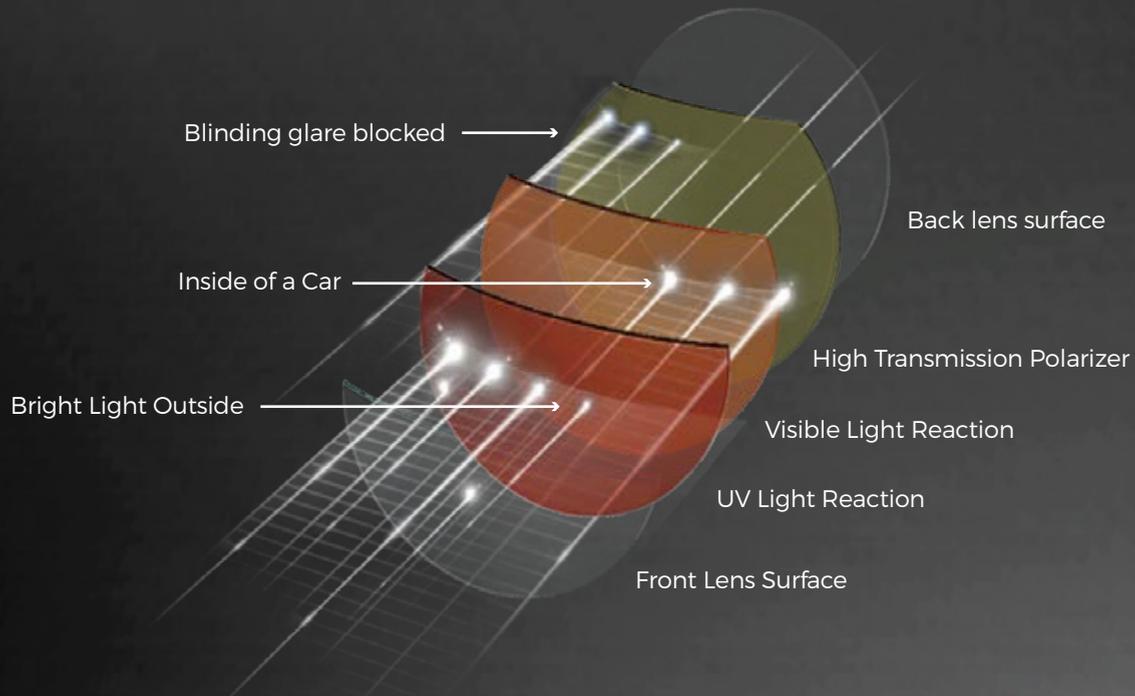


Polar Greenish 70



NuPolar Brown

DRIVEWEAR is world's first intelligent Polarised Photochromic prescription Sunglass Lens for Drivers.



Drivewear Lenses were developed because clients & eyecare professional asked specially for a resin Photochromic Lens that darken in car.

Ordinary plastic photochromic lenses only darken when exposed directly to UV light. Any car's windscreen will block UV, preventing it from reaching the lens & so it will behave just like lens. Drivewear lenses are activated by both UV & visible light & so it turn dark behind the windscreen. Drivewear lenses will also block blinding glare because they are polarized as well.

Drivewear benefits which no other lens can deliver

- Effectively blocks blinding glare in any weather.
- Only lets information caring light to reach the eye.
- Intelligently & quickly adapt (darken or fade) depending on available light.
- Enhances colour contrast & Improves clarity of vision & depth perception
- Guarantees Traffic Signal & Brake Light is not Impaired.
- Convenience: User doesn't need to change glasses every time with varying light conditions.
- Safety: Driver Vision will not be impacted by Blinding Glare.

IN OVERCAST CONDITIONS



COLOR

designed to maximize useful light information reaching the eye.

POLARIZED

to remove glare that would otherwise destroy vision in low light condition.

Transmission ~ 37%

DURING DRIVING CONDITIONS



COLOR

designed to both remove excess light and provide good traffic signal recognition; highlighting the reds and greens.

POLARIZED

to remove glare for safe driving vision.

Transmission ~ 25%

IN BRIGHT LIGHT CONDITIONS



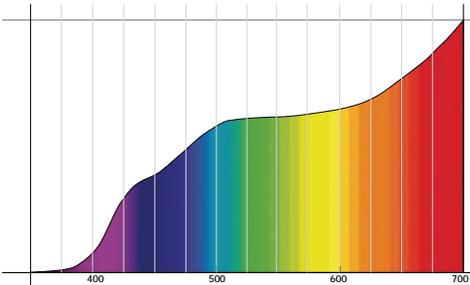
COLOR

designed for maximum filtration of excess light so that the eye does not get saturated.

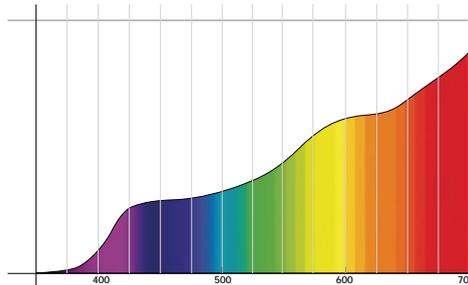
POLARIZED

to provide maximum comfort in high light conditions

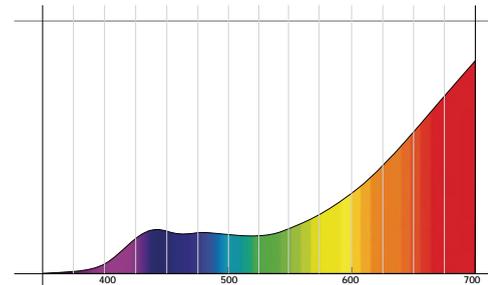
Transmission ~ 10%



TRANSITIONS DRIVEWEAR
TRANSMISSION IN
LOW LIGHT CONDITIONS



TRANSITIONS DRIVEWEAR
TRANSMISSION DURING DRIVING



TRANSITIONS DRIVEWEAR
TRANSMISSION DURING BRIGHT
LIGHT CONDITIONS

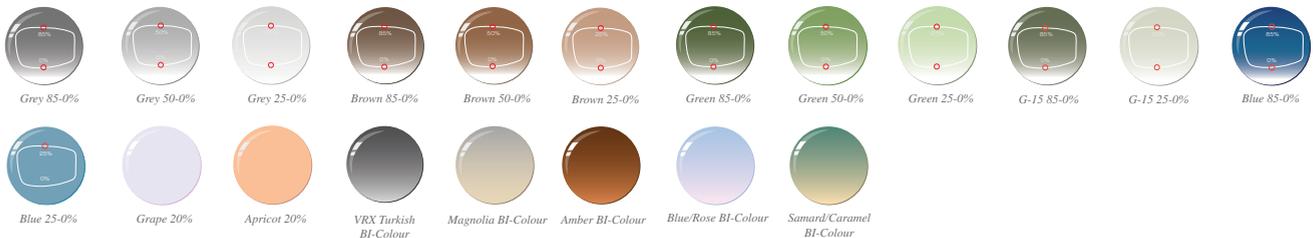
NOVA SUN & SPORT LENS COLOURS

Nova Sun & Sport offers you a full range of tints. No matter whether your customer prefers filter, solid, gradient, bi-colour tints or blue blockers with us, you'll definitely find the right tint for your customers.

SOLID TINT



GRADIENT & BI-COLOUR TINT



ACTIVITY TINT RANGE



ROSE RED

FEATURES:

Heightens contrast in partly cloudy & sunny condition

GOOD FOR:

Cycling, Hunting, Shooting, Skiing, Snowboarding, Snowmobiling.



TANGERINE

FEATURES:

Heightens Contrast in overcast, Hazy & Low light Condition

GOOD FOR:

Cycling, Hunting, Shooting, Skiing, Snowboarding, Snowmobiling.



LEMON YELLOW

FEATURES:

Heightens Contrast in Low light Conditions, Filters Blue Light

GOOD FOR:

Night Driving, Hiking, Trekking, Mountain climbing, Biking



DARK AMBER

FEATURES:

Blocks high amounts of blue light to heighten contrast and visual acuity.

GOOD FOR:

Baseball, Cycling, Fishing (especially in waters with grassy bottoms), Golf, Hunting, Skiing, Water sports.





CINNAMON BROWN

FEATURES:

Cuts Blue Light, Enhance Contrast

GOOD FOR:

Lawn Tennis, Golf, Cricket, Baseball



BLOODY RED

FEATURES:

Hue discrimination colour deficiency, sharp contrast, snow related activities, Hunting.

GOOD FOR:

Hunting, Skiing, Snowboarding, Snowmobiling.



ROYAL BLUE

FEATURES:

Soothing, the tint also helps you see contours clearly

GOOD FOR:

Golf, Hunting, Shooting, Skiing, Snowboarding, Snowmobiling



PLUM

FEATURES:

Heightens contrast in Sunny & Cloudy Conditions

GOOD FOR:

Cycling, Jogging, Racing, Snow Sports.





SLATE GREY

FEATURES:

Reduces overall brightness while preserving 100 percent normal colour recognition.

GOOD FOR:

All outdoor sports in bright light conditions & Day Driving.



EMERALD GREEN

FEATURES:

Heightens contrast (mildly) while preserving colour balance

GOOD FOR:

All Sports Activity



LIME GREEN

FEATURES:

Since they let you see all colours properly and dim glare, Heightens Contrast.

GOOD FOR:

All Sports Activity



BABY PINK

FEATURES:

Heightens contrast in partly cloudy and sunny conditions

GOOD FOR:

Cycling, Fishing, Racing, Skiing, Snowboarding, Snowmobiling, Water sports.





SATIN+[™]

www.satinlens.com



NOVA SUN & SPORT comes with the superior **SATIN+ Coating**, innovative **L.Q Technology** (Lotus Quint-essential).

This new technology makes the lenses easier to clean, allows the lenses to stay clean for long, reflects bad glare, prevents smudges and provides the best scratch-resistant coating hence, more durable and long-lasting.

Lenses Inspired by Life



Satin+ lenses with advance coating for clear & better vision



Scratch Resistance

Anti Reflection

Water Repellent

Oil & Smudge Repellent

Anti-Static

Extended Durability



Be Flashy

PRESENTING FLASH MIRROR LENSES
TO ECHO YOUR MOOD.



CHOOSE YOUR MIRROR



PURPLE



SAPPHIRE



FOREST GREEN



RED



BLUE



SILVER



GOLD

AVAILABLE IN PURPLE, SAPPHIRE, FOREST GREEN, RED, BLUE, SILVER AND GOLD MIRROR

[DISPENSING GUIDE]

Selecting the right frame for Sport Lenses

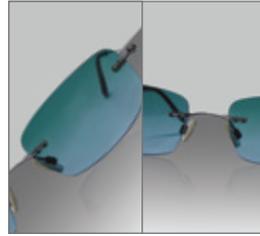
Suitable for Sports Glazing



Sunglasses with
solid rim & V-groove



Metal Sunglasses



Rimless Sunglasses
with outer screws



Nylon Sunglasses
upto 6 base curvature

Unsuitable for Sports Glazing



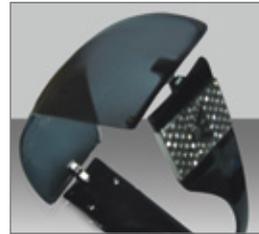
The required diameter
(from one end to another)
lies more than 80mm



Metal Sunglasses
with screws



One piece shield

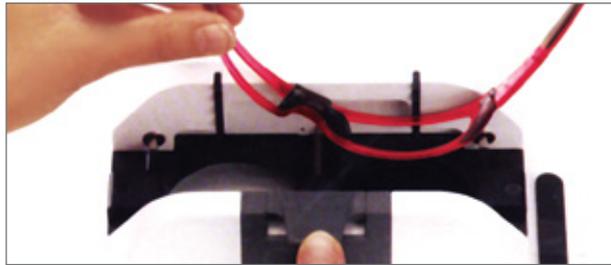


Sunglasses
with designer shapes



Sunglasses which
accepts only
plano lenses

We need the frame and centring data in addition to the individual parameters to ensure an optimum correction



Determining the lens shape through a tracer



Tracing the lens's shape using the frame



Tracing the lens's shape using the lens

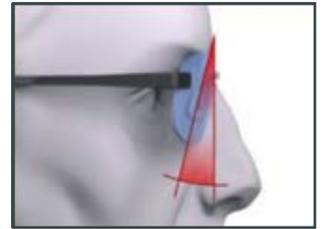
PERSONALIZATION PARAMETERS

When some of the personalization parameters are not available, the final lens will be personalized using standard values.



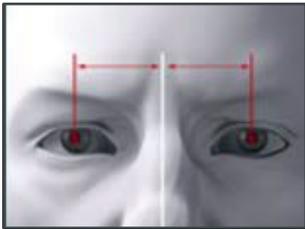
PRESCRIPTION AND ADDITION

Digital Ray-Path® calculates the power that the user will truly perceive once the lenses are fitted on the frame



PANTOSCOPIC ANGLE

This is the angle in the vertical plane between the optical axis of a spectacle lens and the visual axis of the eye in primary position



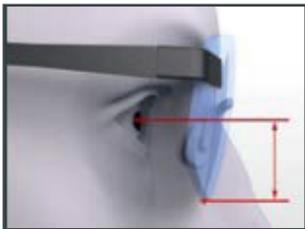
NASO-PUPILLARY DISTANCE (NPD)

Is defined as the distance from the axis of symmetry of the face to the center of the pupil



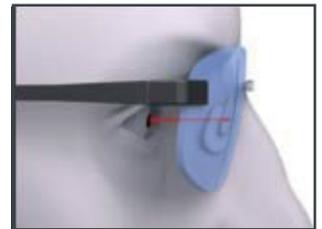
WRAP ANGLE (ZTILT)

Frame curvature



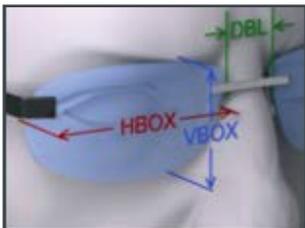
PUPIL HEIGHTS (SEGHT)

Is the vertical distance between the pupil center and the deepest part of the lens shape



BACK VERTEX DISTANCE (BVD)

Distance between the cornea and the back surface of the lens



FRAME SIZES

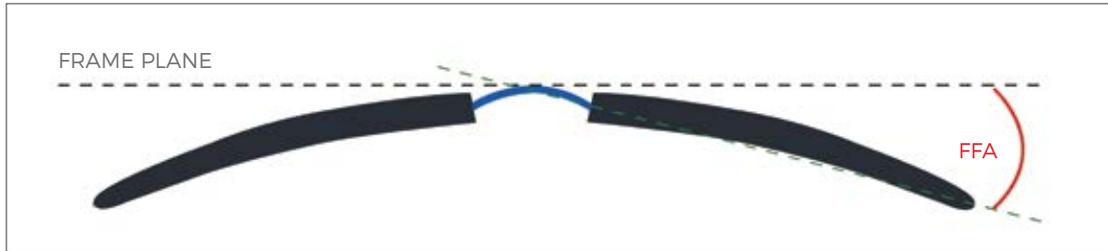
Frame dimensions are used to calculate the final diameter, thickness of the lens and improve the efficiency of the optimization



FRAME LENS BASE

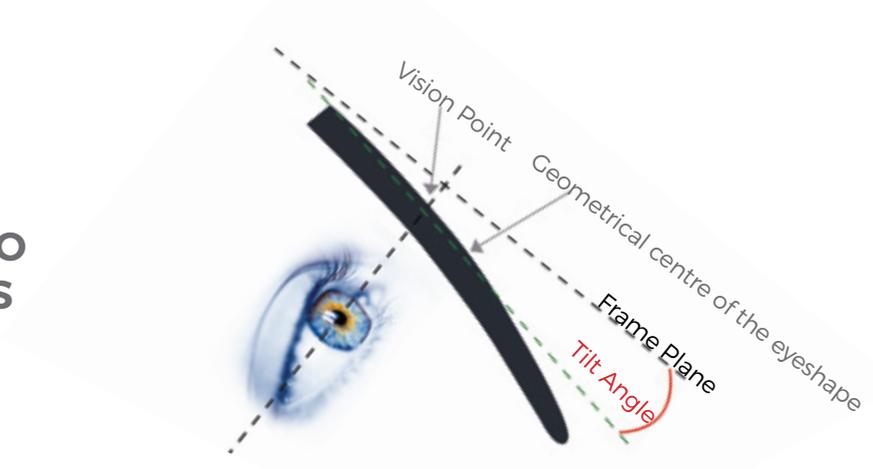
Demo lens Base

ROLE OF FFA FOR VISUAL OPTIMIZATION



Sport frames normally have a stronger curvature than normal spectacles due to their special function and for fashion reasons. The frame plane therefore does not coincide with lens shape plane. The resulting angle between the two planes is known as the Face Form Angle (FFA).

ABERRATIONS DUE TO FFA IN SPORT LENSES



The larger face form Angle of the sport eyewear frames, requires greater curvature of the lenses, together with the dependence on the frame and centering data, result in a specific tilt angle of the lenses in front of the wearer's eyes. The angle of tilt approximately corresponds to the face form angle when the vision point coincides with centre of the lens shape.

NOVA SUN & SPORT - DESIGN FOR SPORT ACTIVITES

CONVENTIONAL PROGRESSIVE

A Conventional Progressive was ordered with the given refraction values:

SPH +4.00D, CYL +1.00 D, ADD +2.00D

Normally, the prescription would be surfaced from the base curve 5.5FFA of 4 Degree.

The diagram below shows the binocular visual impression through a conventional progressive lens glazed in a sport frame, with the frame of a FFA of 12 degree. In addition, the lens was surfaced with a base curve of 7.00D to ensure a better glazing of the lens in the sports frame.



- *Restrictions in all vision zones.*
- *High swim & sway.*
- *Distortions due to high base curve.*

NOVA SUN & SPORT

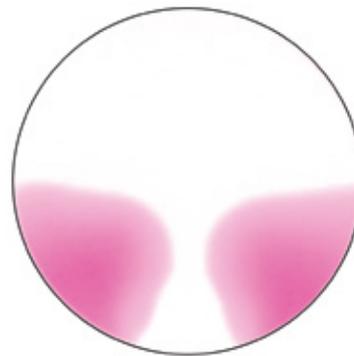
A Nova Sun & Sport lens was ordered with the given refraction values:

SPH +4.00D, CYL +1.00 D, ADD +2.00D

All required individualization parameters, the frame data and the centering data were given in the order.

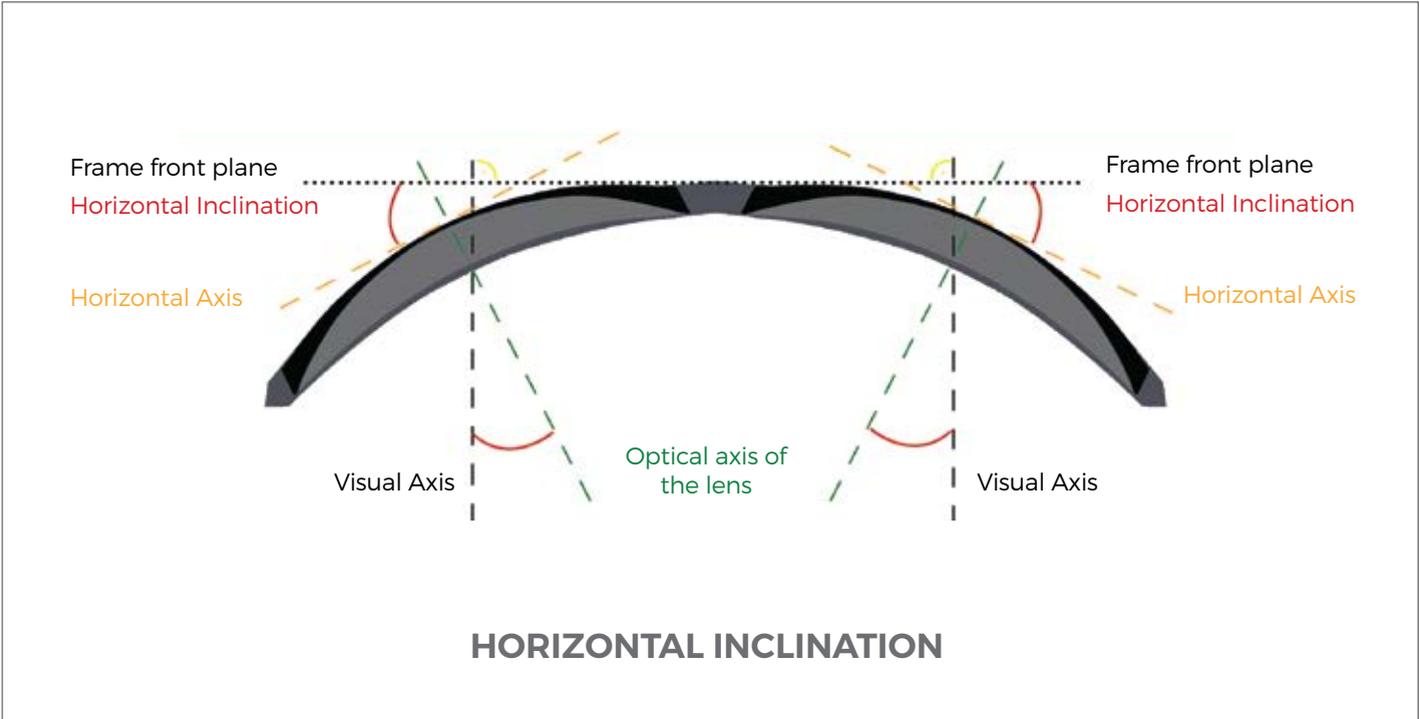
The diagram here also shows the binocular visual impression through the Nova Sun & Sport progressive lens with an adapted base curve.

The parameters of the worn position however, correspond to the a parameters used in the calculation.



- *No restrictions in the vision zones.*
- *Low swim & sway.*
- *Lesser peripheral distortions.*
- *High spontaneous compatibility.*

[HOW FACE FORM ANGLE IS CRITICAL FOR SPORT]



[PRESCRIPTION COMPENSATION]

	SPH.	CYL.	AXIS	PR.
Prescription	+3.25	+0.75	155°	-
Horizontal Inclination 28°	+2.50	+1.25	168°	1.5
Horizontal Inclination 21°	+3.00	+1.00	163°	1.0

Change of dioptric power in ratio changing horizontal inclination

Note: With your Nova Sun & Sport lens there will be a difference between the Prescribed and Compensated power. This is an assurance for the compensation in power due to high face form angle and high curvature of sunglasses. You will find accurate power when positioned in front of the eye.

