

The Zeiss logo, consisting of the word "ZEISS" in white, bold, sans-serif capital letters, set against a blue square background with a white curved bottom edge.

**ZEISS**

**Brent McCardle**

**Technical Sales and Education Specialist**



# The Portfolio

# Progressive Sport/Wrap Availability



	ZEISS Choice Plus Sport	ZEISS Plus 2 Sport	ZEISS DriveSafe Sport	ZEISS Individual Wrap	ZEISS DriveSafe Individual Sport	ZEISS Individual Sport
<div></div> <i>Custom Pantoscopic Tilt</i>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Custom Vertex</i>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Cosmetic Edge Technology</i>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Custom Wrap</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Custom Initials</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Precision Technology</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Digital Sport

## Single Vision Sport

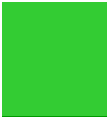
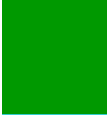






	ZEISS Digital Sport	ZEISS SV DriveSafe Sport	ZEISS Individual SV Wrap	ZEISS SV DriveSafe Individual Sport	ZEISS Individual SV Sport
<div></div> <i>Custom Pantoscopic Tilt</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Custom Vertex</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Cosmetic Edge Technology</i>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Custom Wrap</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Custom Initials</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div> <i>Precision Technology</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# synchrony HDC



	synchrony SV HDC Curves	synchrony Progressive HDC Curves
 <i>Custom Pantoscopic Tilt</i>	<input type="checkbox"/>	<input type="checkbox"/>
 <i>Custom Vertex</i>	<input type="checkbox"/>	<input type="checkbox"/>
 <i>Cosmetic Edge Technology</i>	<input type="checkbox"/>	<input type="checkbox"/>
 <i>Custom Wrap</i>	<input type="checkbox"/>	<input type="checkbox"/>
 <i>Custom Initials</i>		
 <i>Precision Technology</i>	<input type="checkbox"/>	<input type="checkbox"/>



# Technology



**ZEISS Sport lenses deliver a superior performance with:**

1. ZEISS Precision Optics – Specially optimized optics for wide and clear Vision for curved and tilted lenses (addressing issues 1 and 2)

**2. 'NEW' Cosmetic Edge Technology (CET)**

- ✦ No prismatic jump, no blur, less distortion
- ✦ Large, wide optical zone
- ✦ Up to 30% thickness reduction

3. Fitting every Frame

4. Widest choice of designs/materials/treatments

5. Extended Rx Range

# Precision Technology All Lenses

## Summary



### 1. **Clear Optics:** Advanced understanding of the eye

- Updated standard Position of Wear data
- Center of Rotation (CORE) technology
- Real time optimization
- Back surface freeform

1. Clear Optics

### 2. **Dynamic Optics:** Optimization based on horizontal & vertical eye movement

- 3D optimization
- Variable inset
- Horizontal symmetry
- Minimized HOA & LOA

2. Dynamic Optics

### 3. **Thin Optics:** Best aesthetics without compromising optics

- Best possible prism thinning
- Advanced base curve optimization

3. Thin Optics

# Edge Thinning Technology

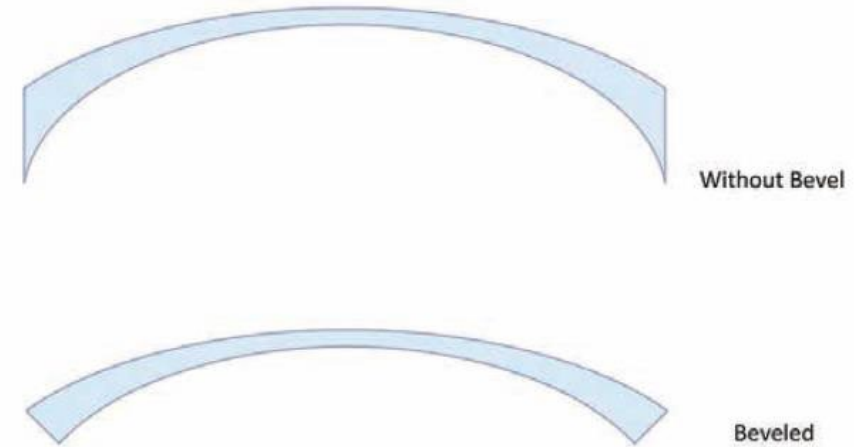
## Beveled Edges



One procedure for dealing with very thick edges is to produce a bevel edge that cuts off the thickest part of the lens.

### **Issue:**

This reduces edge thickness in a restricted area, so the lens will remain quite thick and will be heavy as a consequence. If a bevel is too wide, reflections from the flat surface are highly visible through the front of the lens.



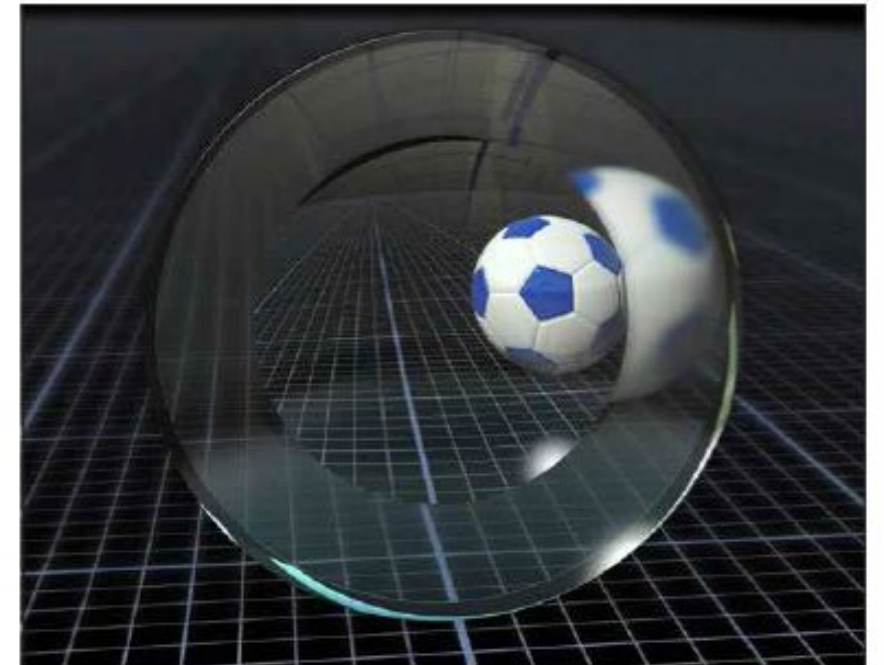
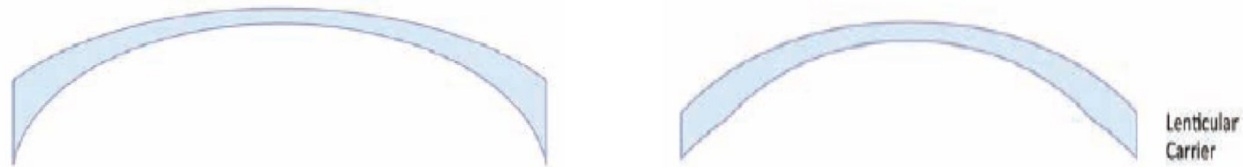


# Edge Thinning Technology Lenticular Carrier

Lenticular Carrier Curve flattens and thins the lens periphery

## Issue:

However this creates a visible junction with prismatic jump and a peripheral zone of under-corrected vision causing visual confusion.

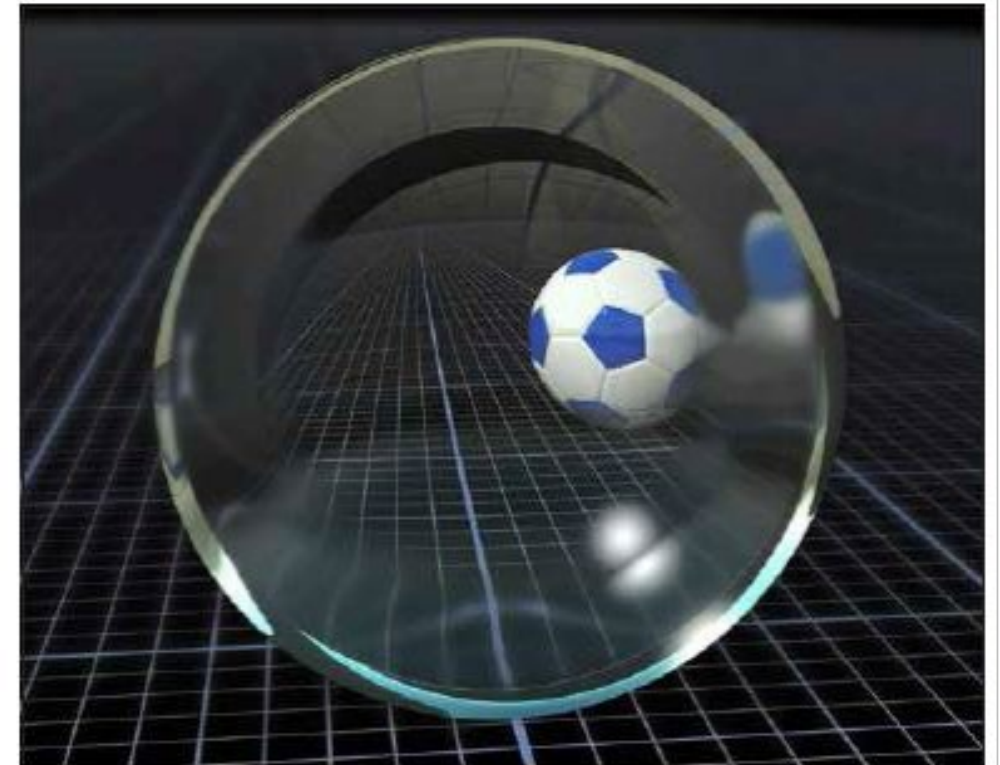


# Edge Thinning Technology Blended Lenticular Carrier

One way to eliminate the sharp visible junction in lenticular carriers is to smooth and blend the surface near the junction (e.g. Thin Tech)

## Issue:

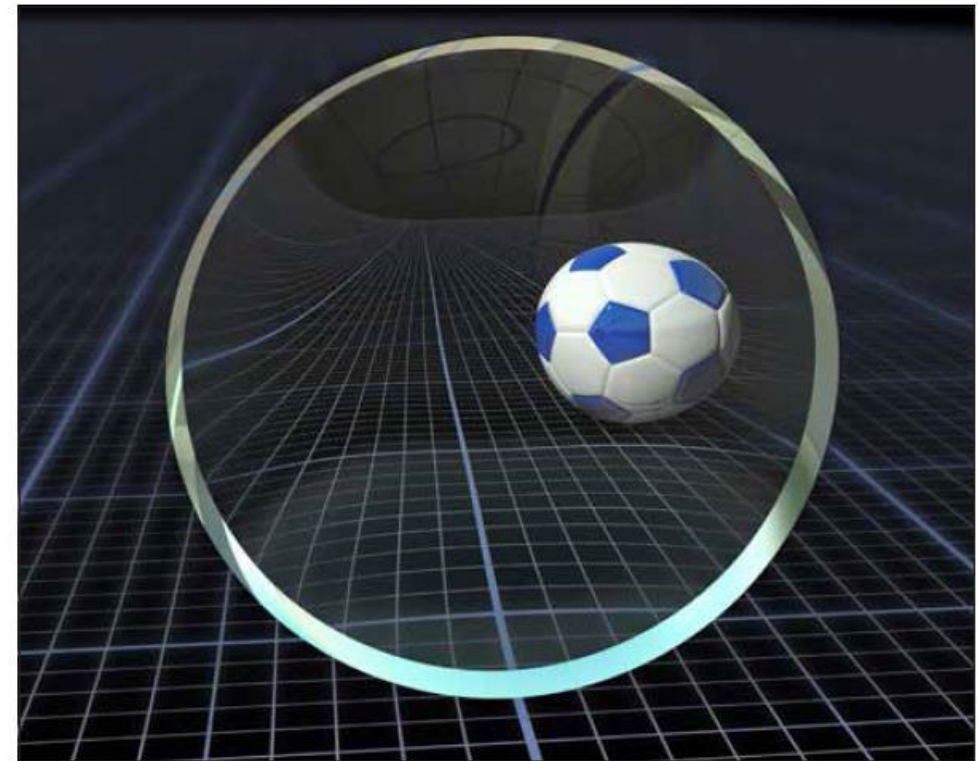
This improves cosmetics compared to an unblended lenticular carrier, but unfortunately, it results in very poor optics



# Zeiss Cosmetic Edge Technology

## ZEISS CET :

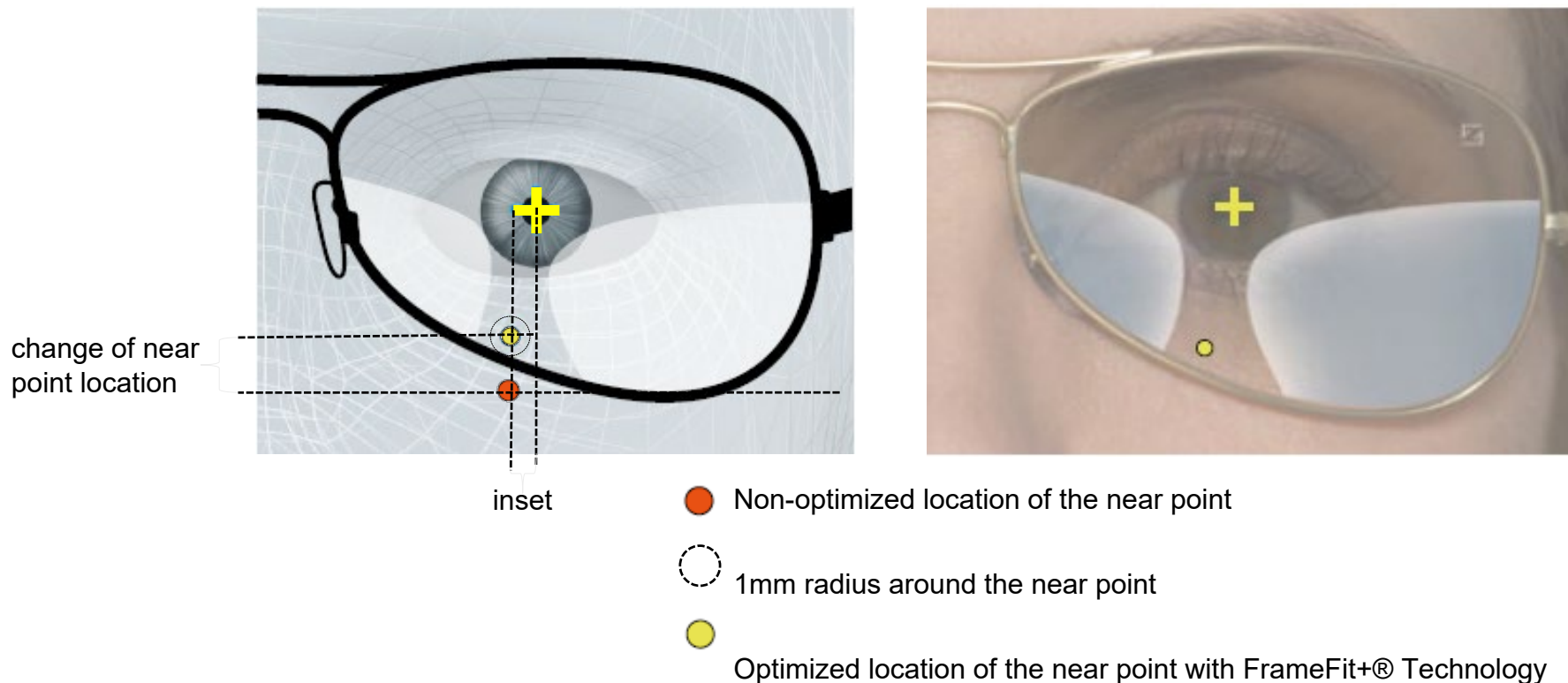
- Uses advanced computing methods to create a surface that minimizes blur and distortion while achieving significant reduction of edge thickness. The result is a lens that is both visually effective and cosmetically pleasing, even in strong negative powers.
- Reduces edge thickness by up to 30%. This amount of edge thinning is comparable to the effect of changing from a standard index to a high index lens material.
- Is applied if the final edge thickness for either lens exceeds 5mm. This cannot be turned off for a specific pair.
- In order to provide best optics and cosmetics possible, thickness balancing is not applied.



# FrameFit+

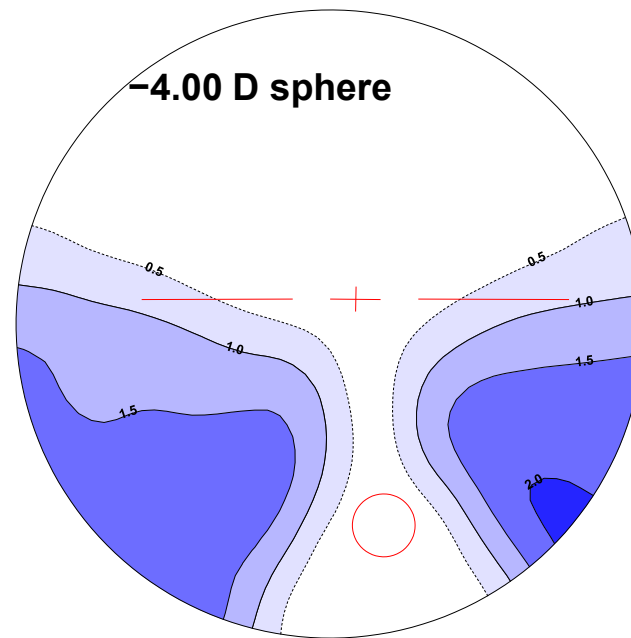
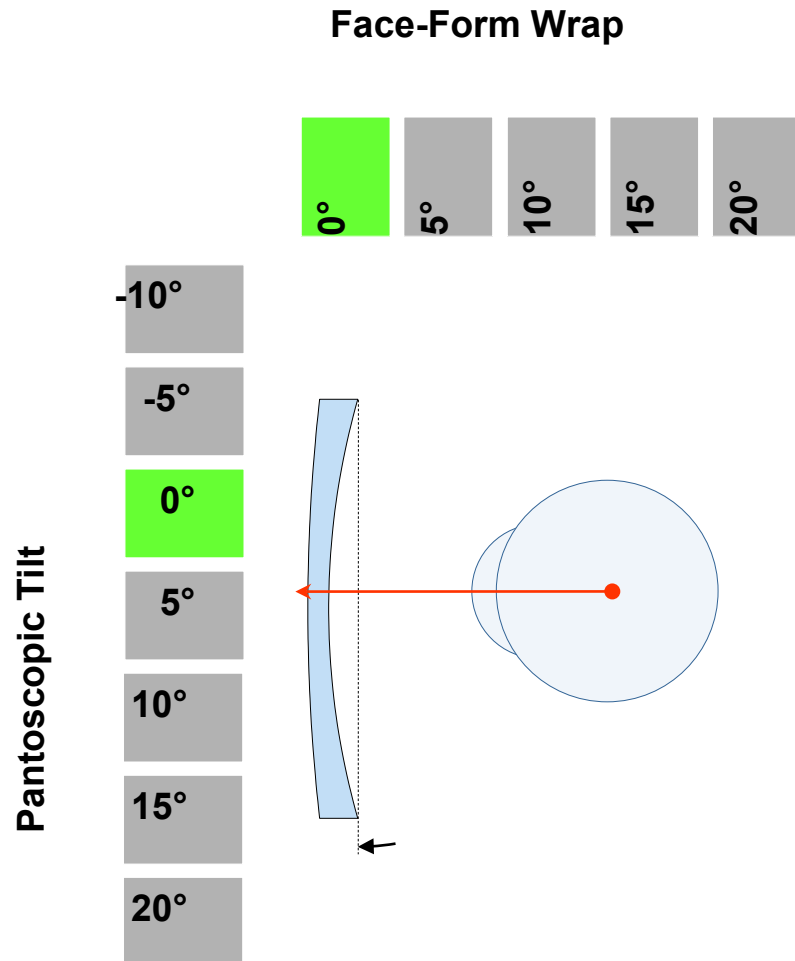
Takes into account the lens size and shape

**FrameFit+® Technology** takes into account the lens size and shape to avoid cut-outs of the near zone – also for special frame shapes



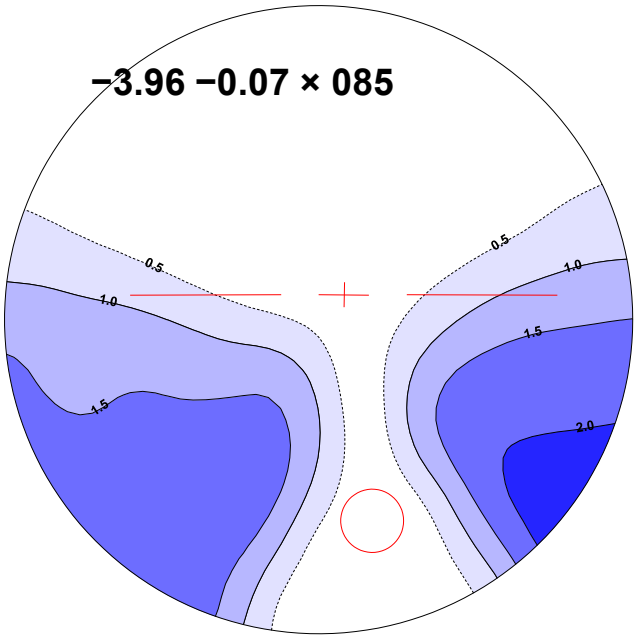
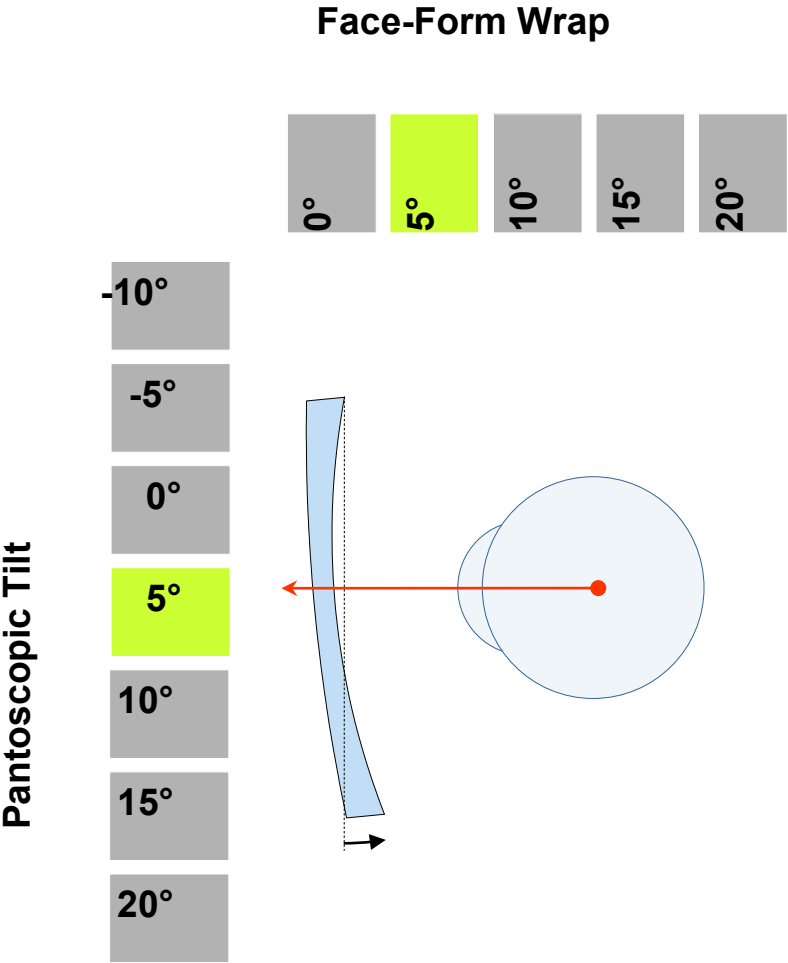
# Limitations of Traditional Lenses

## Optical Effects of Position of Wear





Limitations of Traditional Lenses  
**Optical Effects of Position of Wear**

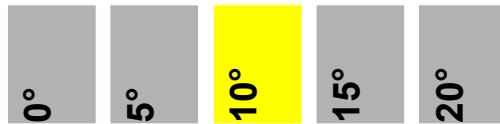


# Limitations of Traditional Lenses

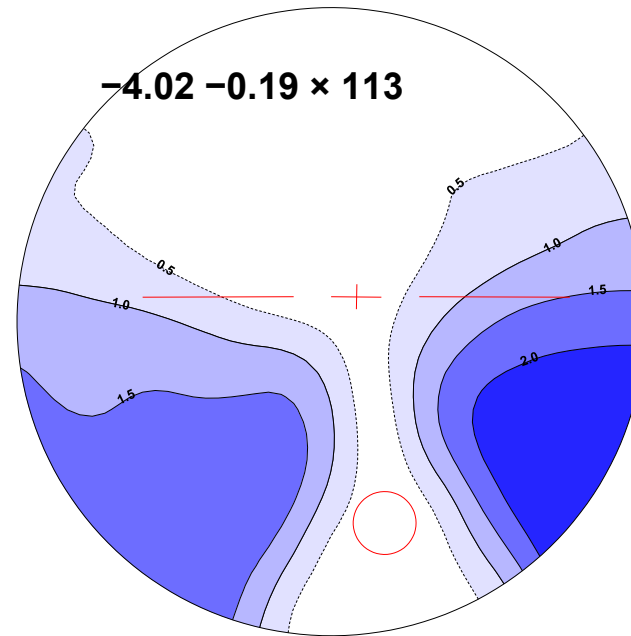
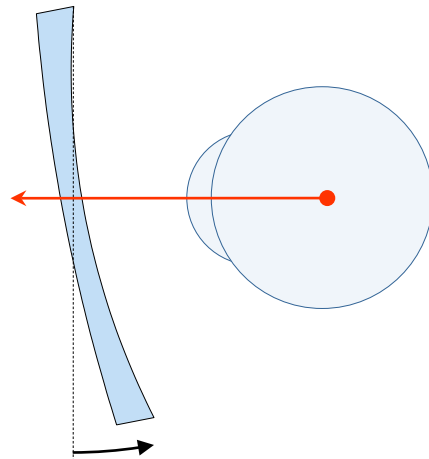
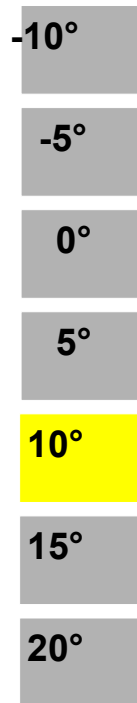
## Optical Effects of Position of Wear



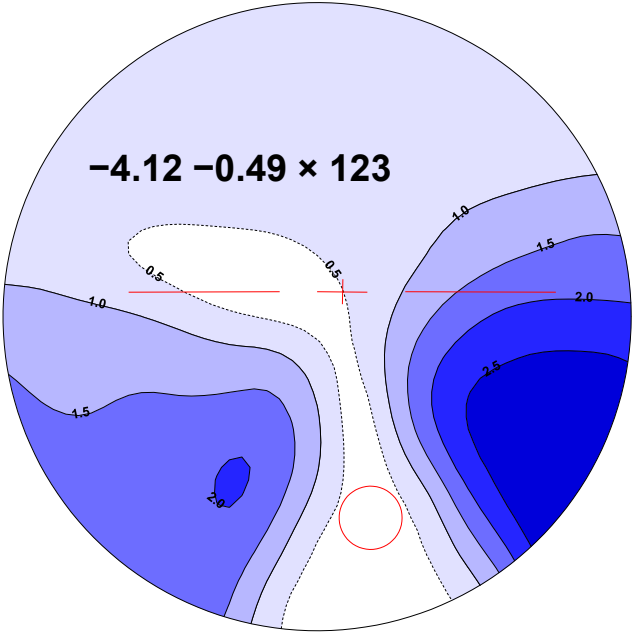
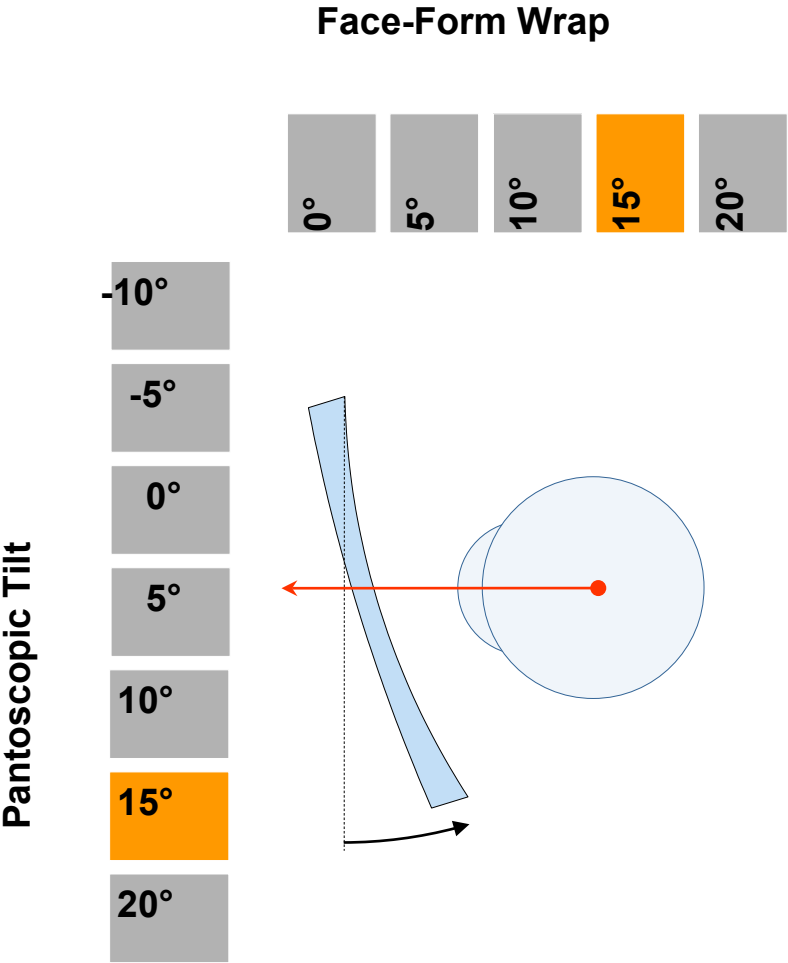
### Face-Form Wrap



### Pantoscopic Tilt



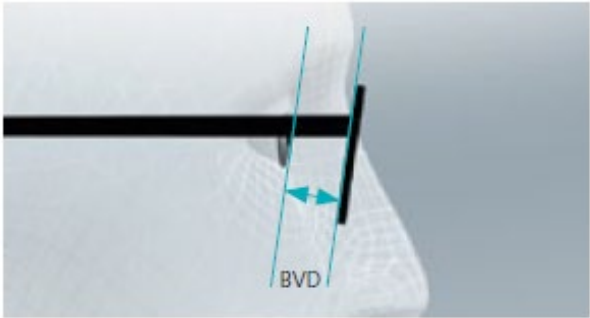
Limitations of Traditional Lenses  
**Optical Effects of Position of Wear**



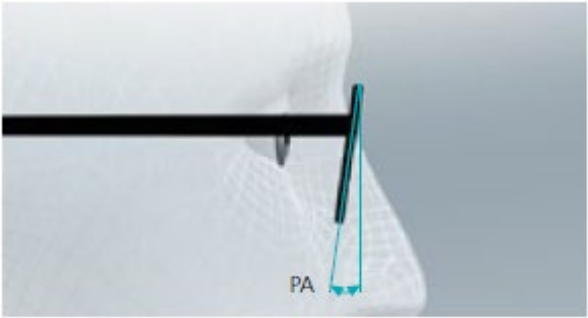
# Default position of wear for Sport/Wrap



MEASURE	DEFAULT VALUE
Vertex distance	10.0mm
Pantoscopic tilt	12.0°
Wrap angle	17.0 °



Vertex Distance

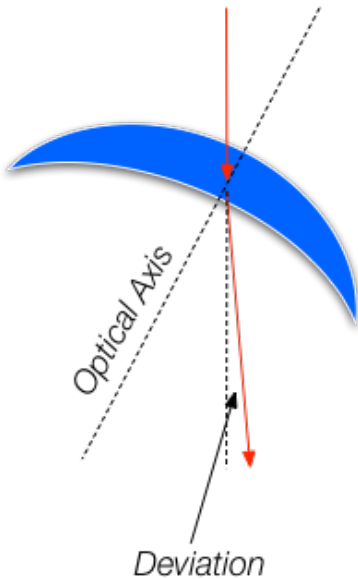
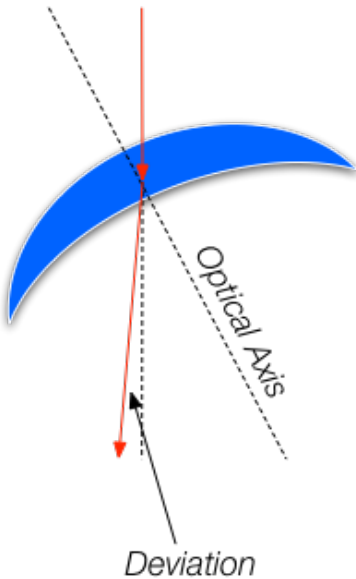
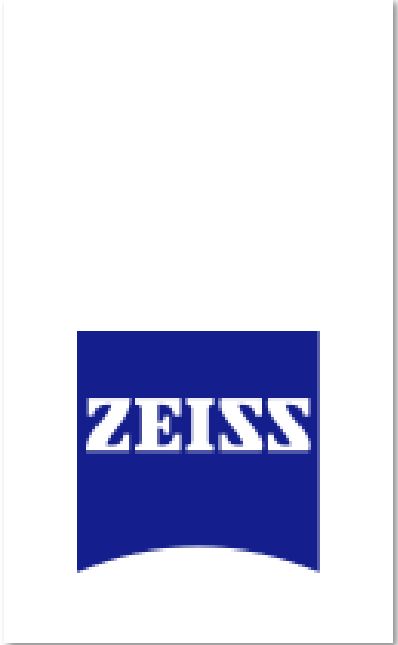


Pantoscopic Angle



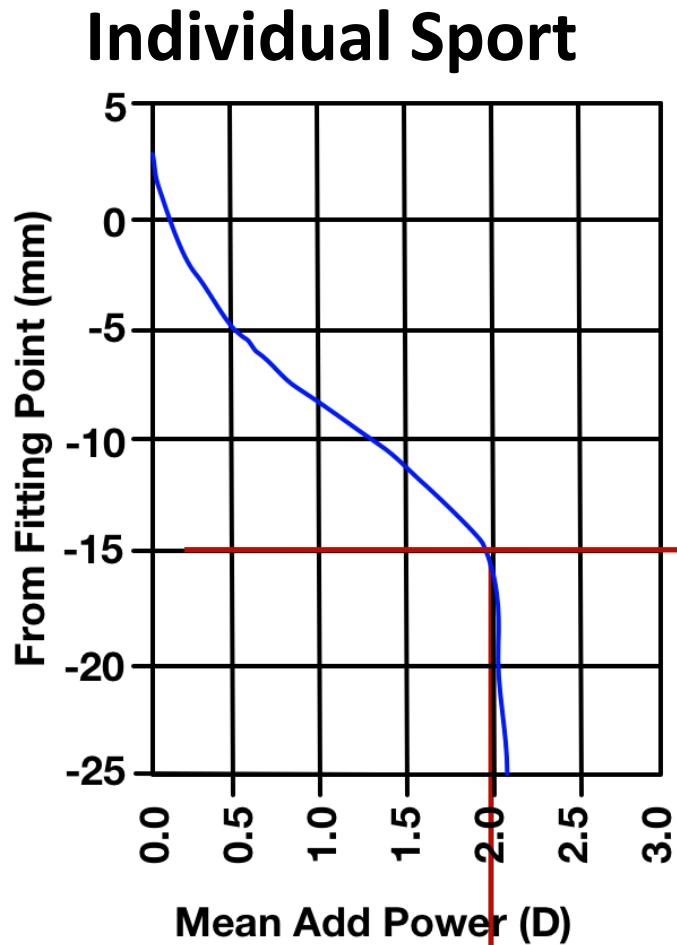
Wrap Angle

# Effects Prism



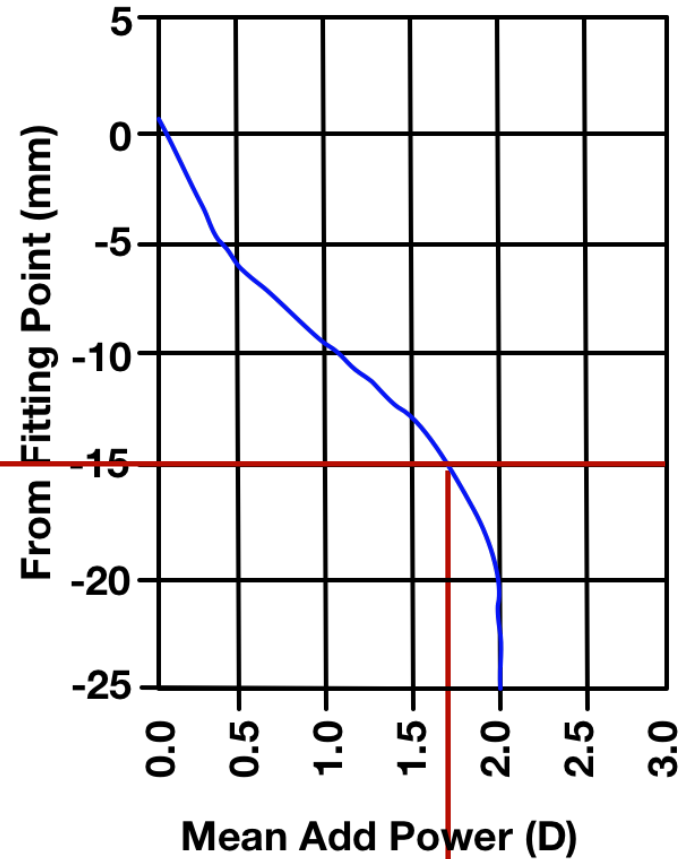


# DriveSafe Individual Sport Design



**+2.00 D**

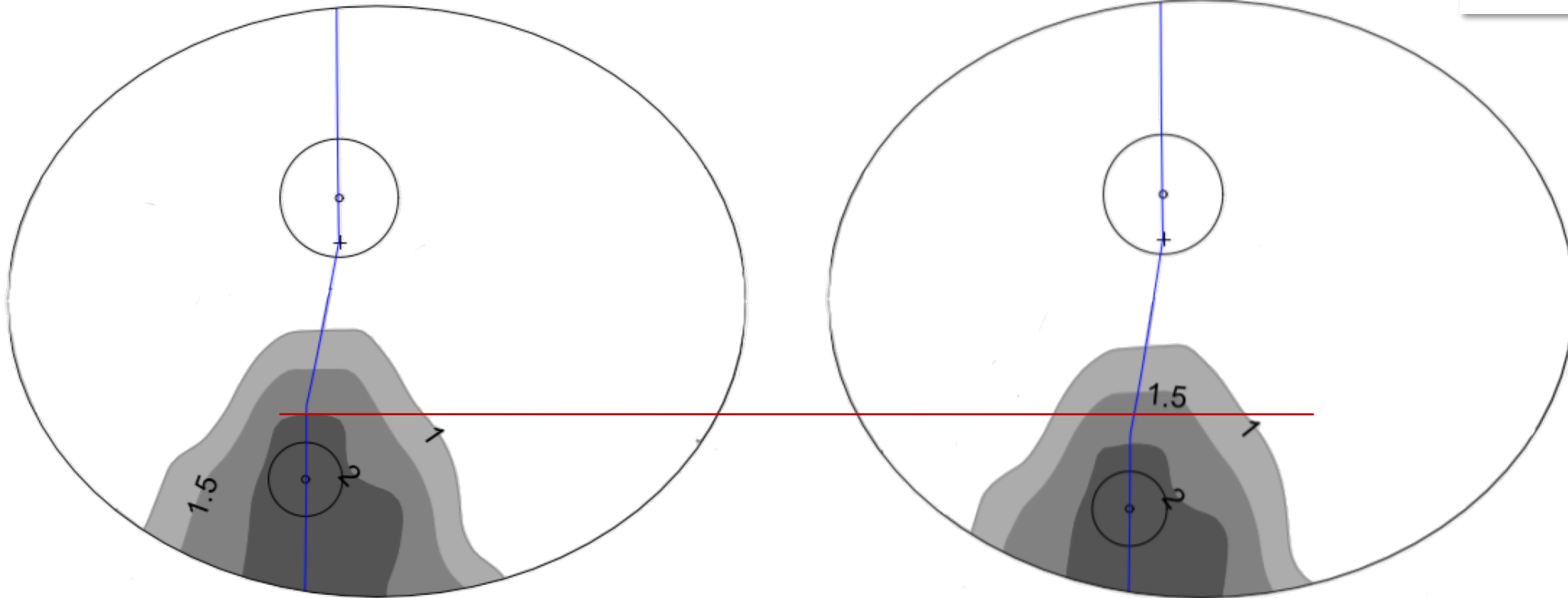
## DriveSafe Individual Sport



**+1.62 D**



# DriveSafe Individual Sport vs Individual Sport Design Differences



Individual Sport

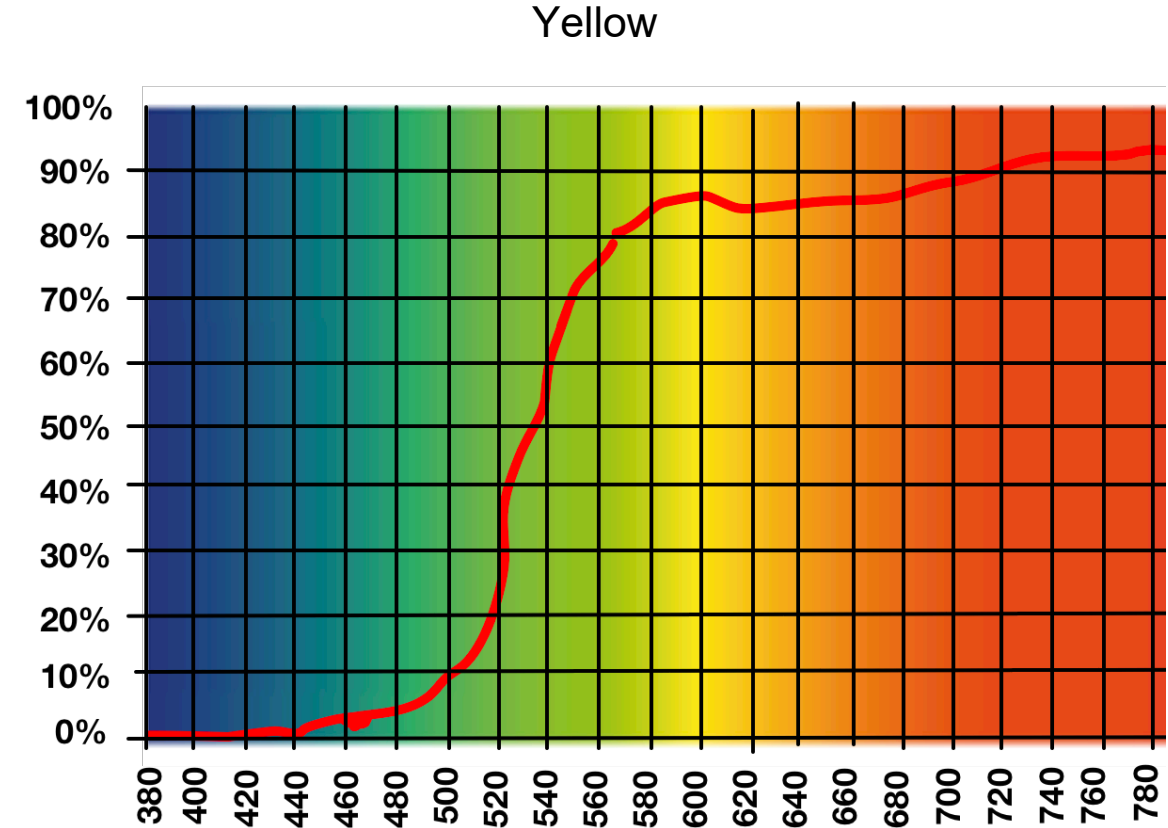
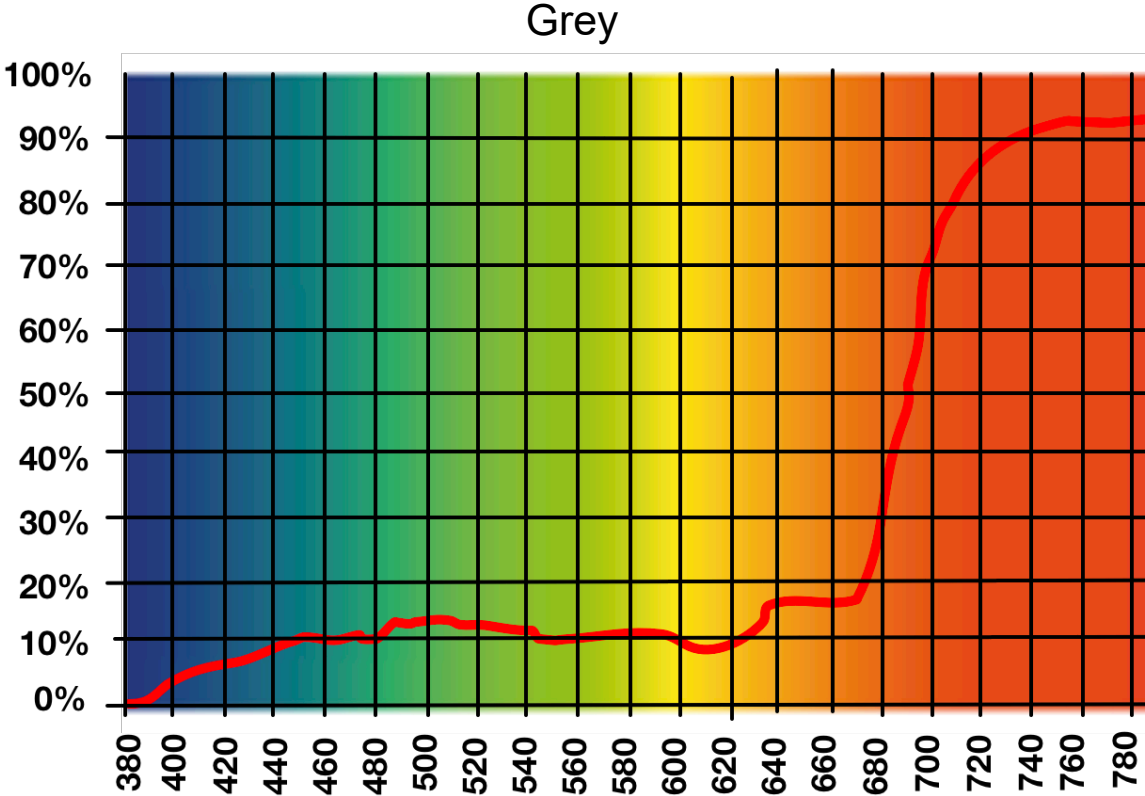
DriveSafe Individual Sport



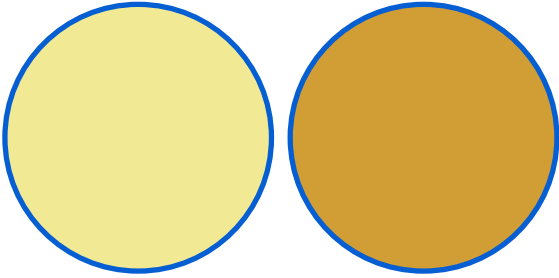
# Colors



# Spectral Transmittance Charts



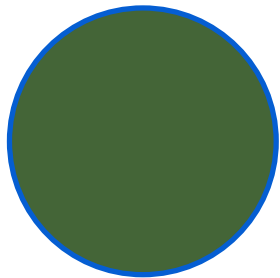
### Yellow or Orange



Heightens contrast in overcast, hazy, low-light conditions outdoors or for indoor sports. Filters blue light for sharper focus.

**Sports:** cycling, hunting, shooting, skiing, snowboarding, snowmobiling, indoor basketball, handball, racquetball, tennis.

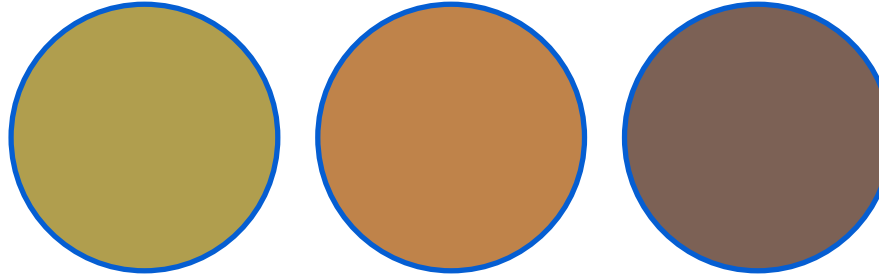
### Green



Heightens contrast (mildly) while preserving color balance.

**Sports:** baseball, golf.

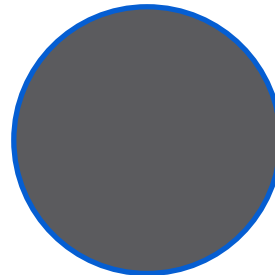
### Dark Amber, Copper, or Brown



Blocks high amounts of blue light to heighten contrast and visual acuity. Particularly useful to improve contrast on grass and against blue skies. Improves Depth Perception

**Sports:** baseball, cycling, fishing (especially in waters with grassy bottoms), golf, hunting, skiing, water sports.

### Grey

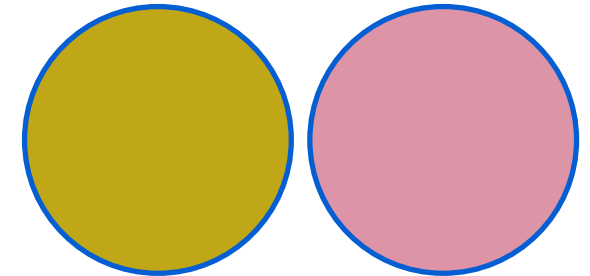


Reduces overall brightness while preserving 100 percent normal color recognition.

**Sports:** all outdoor sports in bright light conditions.



### Amber or Rose



Heightens contrast in partly cloudy and sunny conditions, but causes significant color imbalances. Brightest field of vision, works with flat light conditions

**Sports:** cycling, fishing (amber lenses for sandy lake or stream beds), hunting, shooting, skiing, snowboarding, snowmobiling, water sports.

# Colors

## Brown

- Partly Cloudy to sunny
- Great overall sunglasses

## Grey

- Variable weather tint
- Great overall sunglasses

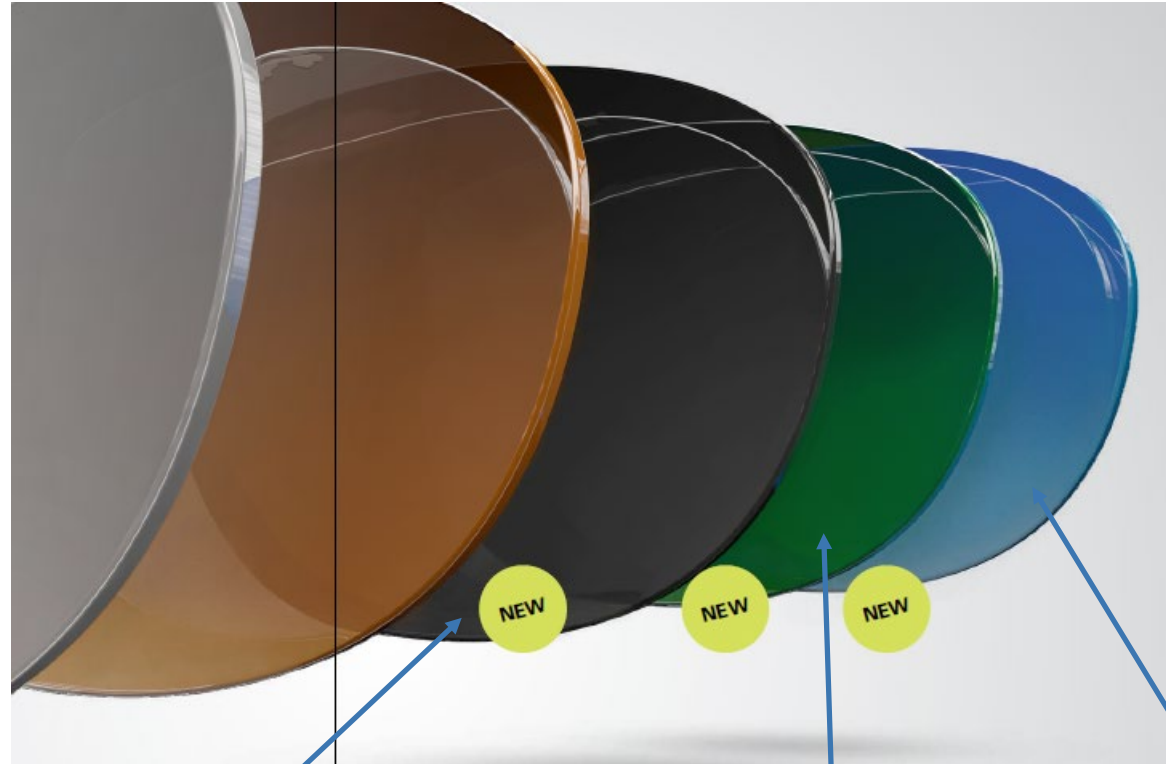
- Good in misty, foggy, and snowy conditions
- Good in rain or shin
- Good for morning and evening, foggy and hazy
- Best for Snow







# PhotoFusion New Colors



**Extra Gray**  
(similar to XTRActive)

**Pioneer  
Green**

**Blue**



# PhotoFusion Availability



PhotoFusion	Grey	Brown	Extra Grey	Pioneer Green	Blue
1.5 index					
1.59 index					
1.6 index					
1.67 index					*

# Mirrors



**DuraVision Green**



**DuraVision Red**



**DuraVision Silver**



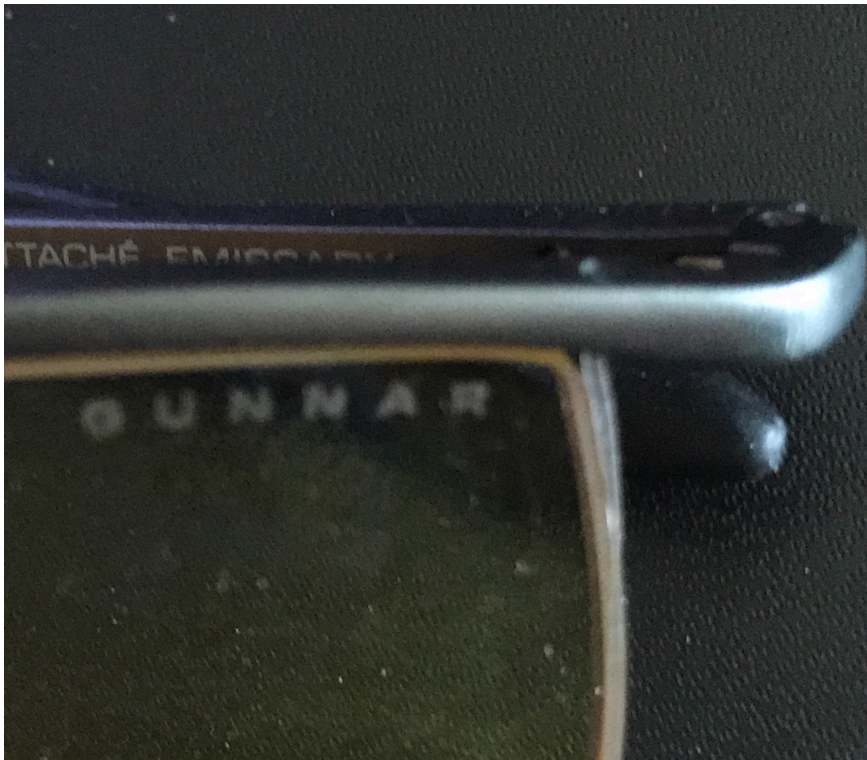
**DuraVision Blue**

\*If base color changes the mirror color will change

# Custom Laser Engravings

## Custom Engravings

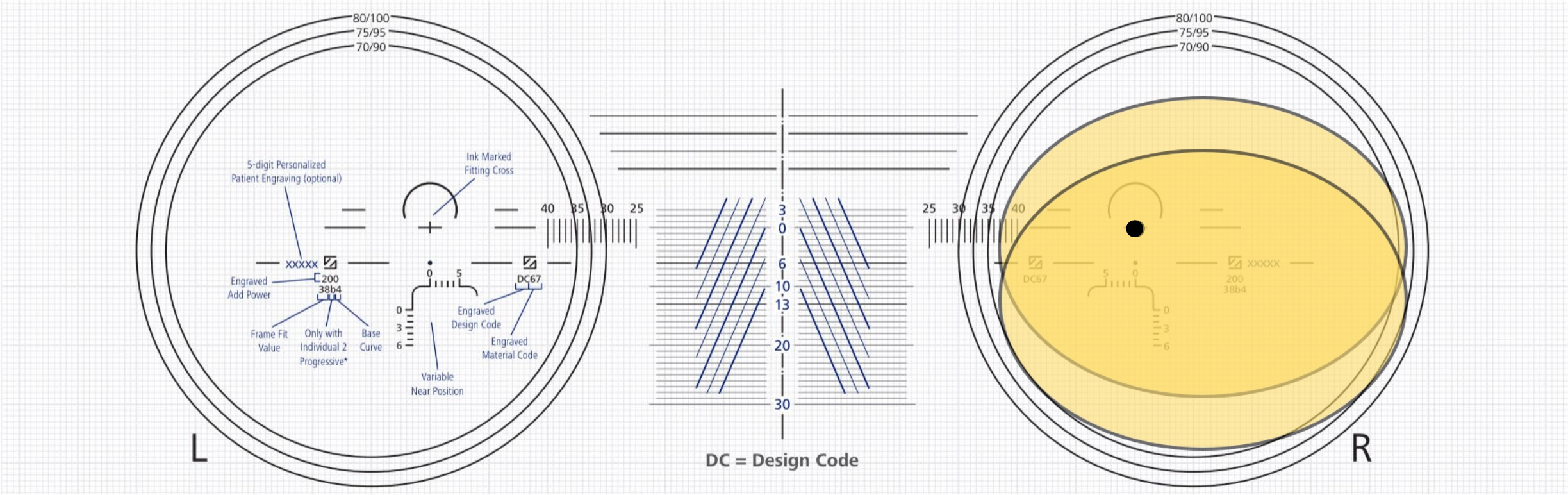
- Up to five alphanumeric characters for laser engravings
- Etch into the lens itself is a possibility





# Tips

# Check Cut-Out Prior to ordering





# Check Wrap Angle

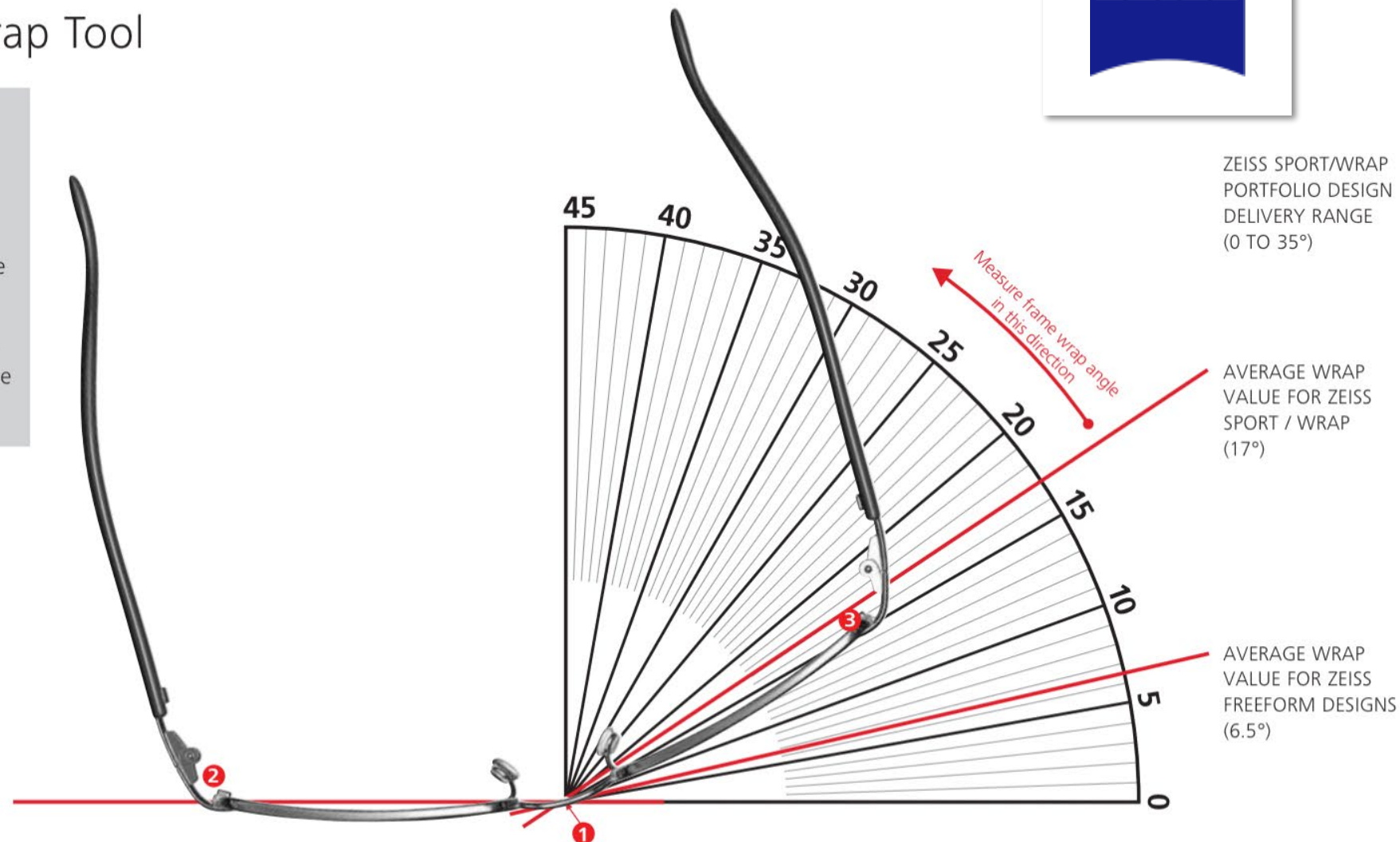


## ZEISS Portfolio Frame Wrap Tool

### MEASURING FRAME WRAP

**Pre-adjust the frame for best patient fit.**

- 1 Place the frame top down with the bridge at the center point **1**.
- 2 Position the left temporal groove of the frame on the horizon line as shown at point **2**.
- 3 Measure the frame wrap angle from the base of the tool to the right temporal groove of the frame as shown at point **3**.



## Considerations:

### Notch & Shelf Bevels Issue

When processing Notch or Shelf frames, Polycarbonate has been the material of choice. However, due to the edging requirements (notch or shelf) sun lenses will be left with a “White Ring” effect that may not be cosmetically appealing.



**Note:** Polycarbonate material can not be tinted after edging.



## Solution: Trivex



**Trivex**



**Poly**



Trivex material allows the lenses to be tinted after edging.

Results: lenses have a consistent tint through out the lens, including the edges.





# Availability

# Fitting Parameters

LENS TYPE	MINIMUM FITTING HEIGHT	ADD POWER
Individual Sport Individual Wrap	13	+0.75 - +3.50
DriveSafe Individual Sport DriveSafe Sport	13	+0.75 - +3.50
Plus 2 Sport	18	+0.75 - +3.50
Plus 2 Short Sport	14	+0.75 - +3.50
Choice Plus Sport 13	13	+0.75 - +3.50
Choice Plus Sport 17	17	+0.75 - +3.50
Synchrony HDC Curves	13	+0.75 - +3.50
Digital Sport	13	+0.50 - +1.25



# ZEISS Materials/Ranges



MATERIAL	RX RANGE	CYLINDER	DIAMETER	PHOTOFUSION
CR- 39 1.5	-4.00 to +4.00	-4.00 D	75/95	Yes
Trivex 1.53	-4.00 to +4.00	-4.00 D	72/92	No
Polycarbonate 1.586*	-6.00 to +6.00	-6.00 D*	72/92	Yes
High Index 1.6	-6.00 to +6.00	-6.00 D*	75/95	Yes
High Index 1.67	-6.00 to +6.00	-6.00 D*	70/90	Yes

\*Polarized Cylinder up to -4.00D

# Synchrony Materials/Ranges



MATERIAL	RX RANGE	CYLINDER	DIAMETER	PHOTOFUSION
CR- 39 1.5	-3.50 to +4.00	-4.00 D	75/95	Yes
Trivex 1.53	-4.00 to +4.00	-4.00 D	72/92	No
Polycarbonate 1.586*	-4.50 to +4.00	-4.00 D	72/92	Yes
High Index 1.6	-4.00 to +6.00	-4.00 D	75/95	Yes

# Good Better Best

## Progressives

	ZEISS Brand	Attributes
<b>Best</b>	DriveSafe Individual Sport	<ul style="list-style-type: none"><li>• CET</li><li>• Customize any PoW</li><li>• Wider fields of view</li></ul>
<b>Better</b>	Individual Wrap	<ul style="list-style-type: none"><li>• Customize any PoW</li><li>• Precision Technology</li></ul>
<b>Good</b>	DriveSafe Sport	<ul style="list-style-type: none"><li>• CET</li><li>• Customizable Wrap</li></ul>

## Single Vision



	ZEISS Brand	Attributes
<b>Best</b>	SV DriveSafe Individual Sport	<ul style="list-style-type: none"><li>• CET</li><li>• Customize any PoW</li></ul>
<b>Better</b>	Individual SV Wrap	<ul style="list-style-type: none"><li>• Customize any PoW</li></ul>

## Digital Single Vision

	ZEISS Brand	Attributes
<b>Best</b>	SV DriveSafe Individual Sport	<ul style="list-style-type: none"><li>• CET</li><li>• Customizable Wrap</li></ul>

