



ORION
VISION GROUP

"Merging Art, Science and innovation"

SPECTRUM
INTERNATIONAL

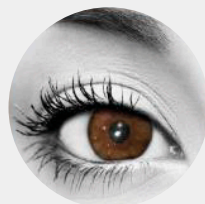
X SERIES

bioCOLORS™
CUSTOM LENSES



bioColors™ are custom-made opaque lenses. With 22 opaque colors and two different iris patterns, patients can select from a vast number of color combinations. These lenses are available in both custom sphere and custom toric prescriptions.

bioColors™ prosthetic custom lenses are for patients with a wide variety of eye disorders and injuries. Our soft prosthetic lenses provide new hope in redefining discolored or misshapen pupils, amblyopia, and other ocular anomalies.



(BEFORE)
BROWN IRIS



45
BLUE GREY



46
CARIBBEAN
BLUE



49
EVERGREEN



54
CHESTNUT



56
DARK
COCOA

V SERIES

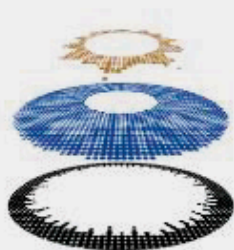
bioCOLORS™
CUSTOM LENSES



How does it work?

Orion Vision Group is a contact lens company that specializes in custom contact lenses that are not available from the major contact lens manufacturers.

Our innovative process seals the lens design and ink inside the lens, making them incredibly comfortable and durable.



(BEFORE)
BROWN IRIS



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56
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COCOA

FITTING SET



The Orion bioCOLORS™ Fitting Set includes:

- 5 lenses - X Iris series
- 17 lenses - V Iris series
- 4 lenses - Underprints
- 1 lens - E Limbal Ring
- 1 lens - V Starburst
- 1 lens - 5.0 Black Pupil
- 1 lens - Toric clear
- 4 lenses - Color blended
- 1 Diagnostic tool



The Orion bioCOLORS™ Fitting Set allows you to build custom prosthetic and cosmetic lens designs on both Methafilcon 55% and Polymacon 38% materials. The lenses in this fitting set are Polymacon 38%.

Prosthetic lenses are any involving an Underprint and/or a Black Pupil.

Cosmetic lenses are any design using only the iris patterns, limbal ring or starburst.



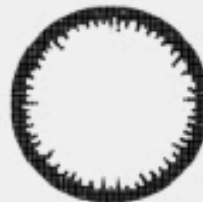
UNDERPRINT



IRIS



STARBURST



LIMBAL RING



COMBINATION

Designing a bioColors™ Lens

When designing a bioColors™ lens, the first lens you place on the diagnostic tool is your base lens. The base lens is the bottom stamp. For prosthetic lenses, the base lens is usually an Underprint. Using the Iris patterns, Limbal Ring, Starburst and Pupil you can layer these lenses on the base lens to create your design. Iris patterns are offered in two types of designs:

- The V series iris patterns have thin iris striations, producing subtle colors that allow you to create realistic designs.
- The X series iris patterns have bolder and thicker striations than the V series. The X series design on a natural eye can alter the color of the eye while keeping a natural look and dramatically lightens the appearance of darker eyes.

Prosthetic lenses are any involving an Underprint and/or a Black Pupil.

Cosmetic lenses are any design using only the iris patterns, limbal ring or starburst.

Diameter Selection

The lenses in the fitting set are an 8.6 base curve and 14.3 diameter.

Base Curve Selection

This chart can be used as a guide for base curve selection based on the lens diameter and average K reading. Available base curves are 7.7 to 9.5 in 0.1 increments.

Toric Fitting

The clear toric lens in the fitting set is used to determine how the lens fits on the patient's eye. The prescription of the clear lens is the fitting set in -3.00 - 0.00 x 180, with markings at 3 and 9 o'clock. An over-re - fraction can be calculated when inserting the clear lens.

Designing Tips

To create unique designs, use the Diagnostic Tool to layer the lenses. Using a Starburst as the base lens, place an Iris pattern on top which can make the Starburst appear more subtle (see example below). To create a softer Limbal Ring, use a Limbal Ring as the base lens and layer iris patterns on top.

Average K	Lens Diameter			
	13.5 & Smaller	14.0 & 14.5	15.0 & larger	
50	7.7	8.0	8.6	
49		8.3		
49	8.0		8.6	8.9
47				
46				
45				
44	8.3	8.9	9.2	
43				
42				
41				
40	8.6	8.9		9.5
39				
38				

The same method applies to color layering. Placing a Caribbean Blue Iris on top of a Baby Blue Iris will appear different than a Baby Blue Iris placed on top of a Caribbean Blue Iris. X series and V series can be combined to achieve the desired iris effect. bioColors™ offers many combinations of patterns and colors. When placing your order please specify layering order from base to top.



V Starburst on
49V Evergreen



V Starburst under
49V Evergreen



44V Baby Blue on
46V Caribbean



46V Caribbean on
44V BabyBlue



56x Dark Cocoa
on 58V Red

Light Sensitivity

Patients who experience light sensitivity due to conditions such as photophobia, glare or an enlarged pupil may benefit from a lens made with an artificial iris to reduce light entering the eye.

Designing a prosthetic lens with a small clear pupil opening will reduce a percentage of peripheral light for patients who have an enlarged pupil.

Additional Services

Tinted pupils

Tints can be added to help with glare, photophobia, migraines, color deficiency and many other conditions. Tint options available for bioSport™ and bioMed™ are also available for the bioColors™ lens.

Decentered Iris

Patients may need a decentered iris if there is substantial scarring or an underlying condition causing the prosthetic contact lens to appear off center. It is recommended that the diameter be at least 15.0 and then the iris can be decentered up to 2mm. The lens will require prism ballast to keep the lens centered.

Iris and Pupil Specification Chart

Methafilcon 55%



Clear Pupil Sizes

Iris Diameter Sizes

		2.8	3.3	4.2	5.0	6.0
12.25	Iris Starburst Limbal	V,X	V,X	V,X	V,XV,X	V,X
		V,X	V,X	V,X	V,X	V,X
		V,X,E,A,CB	V,X,E,A,CB	V,X,E,A,CB	V,X,E,A,CB	V,X,E,A,CB
11.25	Iris Starburst Limbal	V	V	V	V	
		V,X	V,X	V,X	V,X	
		A,E	A,E	A,E	A,E	
10.50	Iris Starburst Limbal	V		V	V	
		V		V	V	
		A,E		A,E	A,E	

*V= V SERIES
*X= X SERIES

E - Limbal Ring extends the diameter of the Iris 0.50 mm
A - Limbal Ring extends the diameter of the Iris 0.50 mm
CB - Limbal Ring extends the diameter of the Iris 1.00 mm

Iris and Pupil Specification Chart

Polymacon 38%



Clear Pupil Sizes

		2.8	3.3	4.2	5.0	6.0
Iris Diameter Sizes	12.25	Iris Starburst Limbal	V,X	V,X	V,X	V,X
			V,X	V,X	V,X	V
			V,X,E,A,CB	V,X,E,A,CB	V,X,E,A,CB	V,X,E,A,CB
	11.25	Iris Starburst Limbal	V	V		
			V,X	V,X		
			A,E	A,E		
	10.50	Iris Starburst Limbal			V	
				V		

*V= V SERIES
*X= X SERIES

E - Limbal Ring extends the diameter of the Iris 0.50 mm
A - Limbal Ring extends the diameter of the Iris 0.50 mm
CB - Limbal Ring extends the diameter of the Iris 1.00 mm

Recommended Lens Care

It is recommended that bioTrue™ multipurpose solution be used for daily storage and cleaning of the bioColors™ contact lens(es).

Lens Fresh™ Extra Strength contact lens cleaner is advised to be used at least once a week to remove protein build-up and deposits.

This cleaner is an alcohol base and is not to be put directly into the eye. A copy of the Lens Fresh™ use instructions is viewable at <https://orionvisiongroup.com/lens-fresh/>

Fitting Kit lenses should be cleaned with Lens Fresh™ prior to use, and after use before storage.

****DO NOT STORE CONTACT LENSES IN LENS FRESH****

Similar products to Lens Fresh™ include Lobob Sof/Pro2 and Walgreens Extra Strength Contact lens cleaner.

Custom Design Concierge Service

If you are having trouble matching the patient's eye color with the fitting set, you can also send photos via email of the patient's eye to **sales@spctinternational.com** There is an additional fee for this service. Contact us to obtain a quote. When sending photos for a color match, the photos should be taken in natural lighting without flash. Slit lamp photos will NOT work for the color match process. It can be helpful to have the patient hold a white piece of paper next to the eye when taking the photos. You will receive two colors samples for selection based off of the images sent. If one of the samples is a good match, we will proceed with the final lens in the needed lens parameters and prescription. If not, photos should be sent of the patient wearing the lens that is the closest match so that the color can be adjusted further. Maximum amount of samples provided with this service is 5.

Lens Care

It is recommended the Lens Fresh™ be used as a cleaner and to store the lenses in BioTrue™. Prior to insertion or dispensing it is advised that lenses be cleaned with Lens Fresh™ extra strength cleaner and thoroughly rinsed with sterile saline or BioTrue™.

FAQ'S



Can the CB colors in the fitting set be used on an underprint?

The CB colors are meant to stand on their own and they are 6mm clear pupils. In rare cases, a CB color may be placed on an underprint but if the pupil size ordered is smaller pupil and there - fore, will be more prominent.

How many colors can be put on any single lens?

Each color is a stamp so when doing multiple colors, we suggest no more than 4 or 5 stamps.

Will the opaque colors alone black out any light?

No, the colors by themselves will not block light transmission.

Glossary

Underprint: Base print for Prosthetic lenses to cover an irregular iris or to help reduce enlarged pupils.

Starburst: Frill surrounding pupil.

Limbal Ring: Dark ring surrounding the Iris.

LENS PARAMETERS



Sphere

+20.00 to - 20.00
in 0.25 diopter steps

Cylinder

Up to - 10.00
in 0.25 diopter steps

Axis

From 1 to 180
in 0.25 diopter steps

Material

Polymacon 38%
Methafilcon 55%

Diameter

13.0 to 22.0 mm

Base Curve

7.7 to 9.5

LENS PARAMETERS

Iris Design Diameters

- 10.5 mm
- 11.25 mm
- 12.25 mm

Limbal Ring Diameter

-Variable

Clear Pupil Sizes

- 2.8 mm
- 3.3 mm
- 4.2 mm
- 5.0 mm
- 6.0 mm

Occluded Pupil Sizes

- 3.0 mm
- 3.5 mm
- 4.0 mm
- 4.5 mm
- 5.0 mm
- 6.0 mm
- 7.0 mm
- 9.0 mm
- 10.5 mm
- 11.0 mm
- 12.0 mm

COLOR PARAMETERS

- 41  Aqua Enhancer
- 42  Blue Enhancer
- 43  Green Enhancer
- 44  Baby blue
- 45  Blue Gray
- 46  Caribbean
- 47  Turquoise
- 48  Lavender

- 49  Evergreen
- 50  Pistachio
- 51  Stormy Gray
- 52  Granite
- 53  Honey
- 54  Chestnut
- 55  Pecan
- 56  Dark Cocoa

UNDERPRINT COLORS

- U1  Black
- U2  Pecan
- U3  Stormy
- U4  Granite



bioSport™ lenses are custom lenses designed to enhance visual acuity for a variety of sporting activities. The colors available are Amber, Bolle Blue, Gray/Green, Green, SunTac and Yellow.



AMBER



BOLLE BLUE



GRAY / GREEN



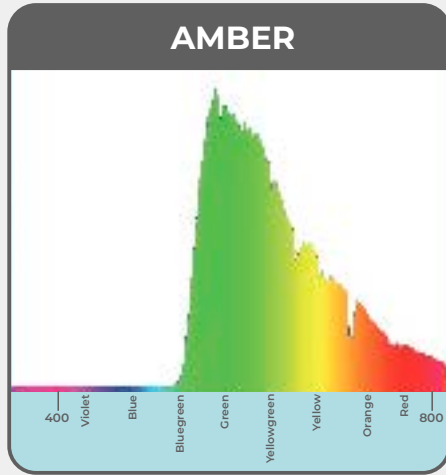
GREEN



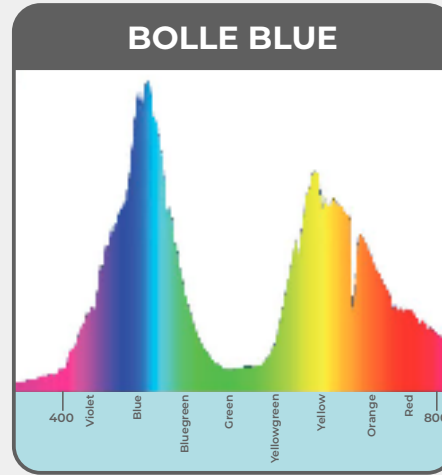
SUN TAC



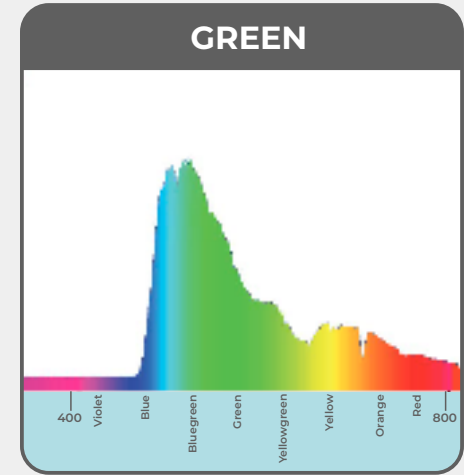
YELLOW



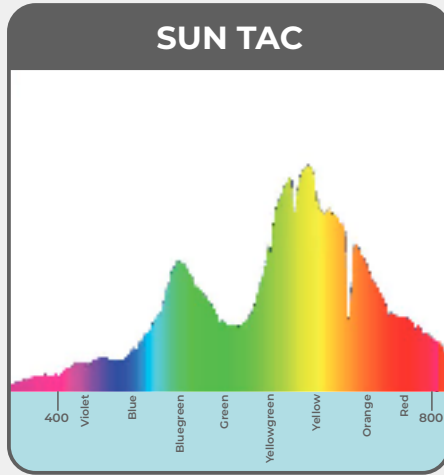
Amber blocks blue light to heighten contrast sensitivity and visual acuity and is recommended for baseball, softball, football (daytime), skiing and water sports. This lens helps reduce glare during competitive sporting events without having to wear bulky-sometimes loose-fitting-sunglasses.



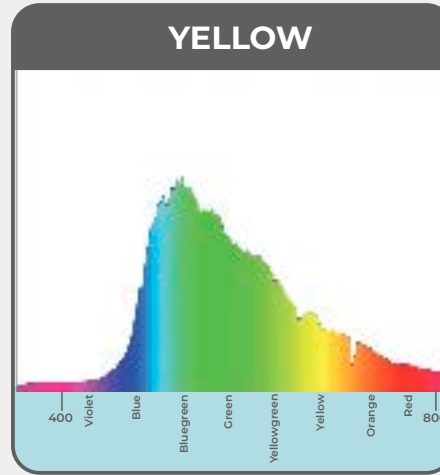
Bolle Blue “brightens” yellow light. A great choice for tennis, football, and daytime baseball.



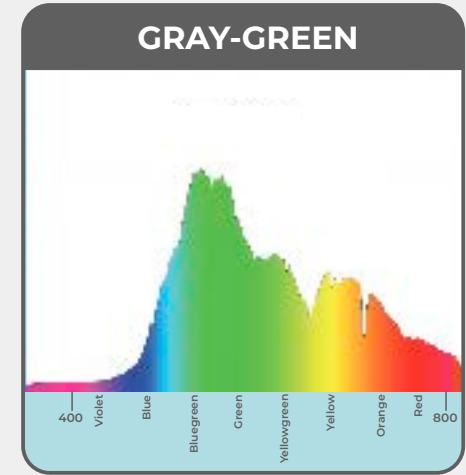
Green mildly heightens contrast while preserving color balance, which helps in bright outdoor light.



Sun Tac reduces overall brightness while preserving 100 percent normal color recognition such as with sunglasses. Successful in treating light sensitivity issues, it is perfect for outdoor activity on a sunny day, especially running.



Yellow heightens contrast in overcast, hazy, low-light conditions outdoors or for indoor sports under fluorescent light. Yellow lenses filter blue light for sharper focus and is most effective for nighttime sports, night driving, hunting and shooting.



Gray Green offers sun protection and improved contrast sensitivity, making it ideal for golf. Golfers will be able to better differentiate distance on a golf course and see the undulations on the green.



bioMed™ Lenses are designed for patients who experience migraines, photophobia, eye strain and difficulties with glare. Colors are available in Blue Blocker, Cobalt, Lavender, Migraine 55, Red and Teal.



**BLUE
BLOCKER**



COBALT



LAVENDER



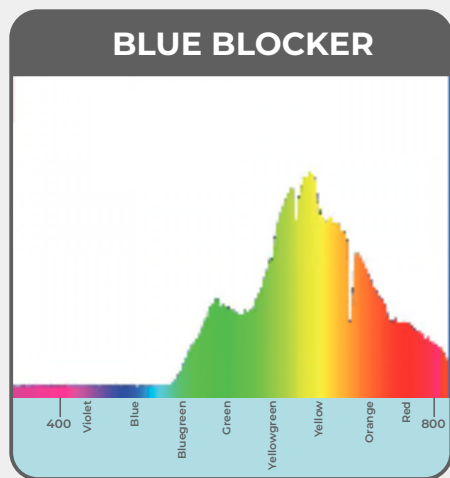
MIGRAINE 55



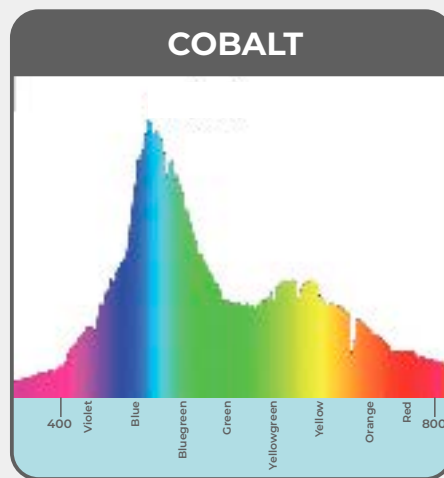
RED



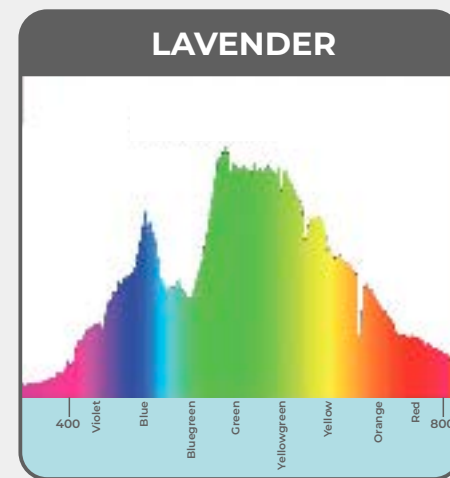
TEAL



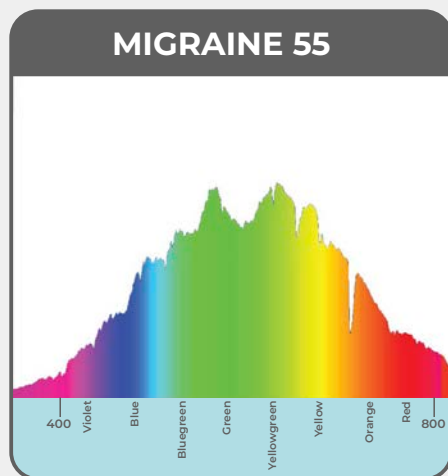
Blue Blocker Blocks out blue light, great for post-concussion, for extreme photophobia (stronger than migraine 55% and lavender).



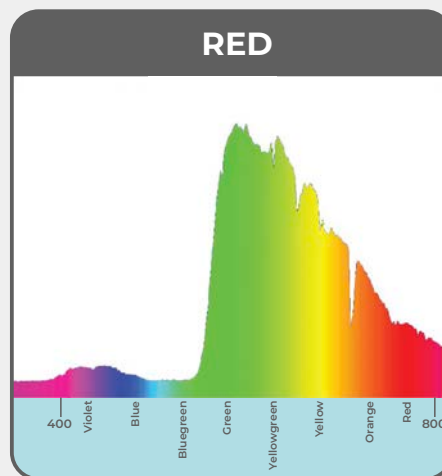
Cobalt Know to prevent seizures reduces glare and improves color perception and contours.



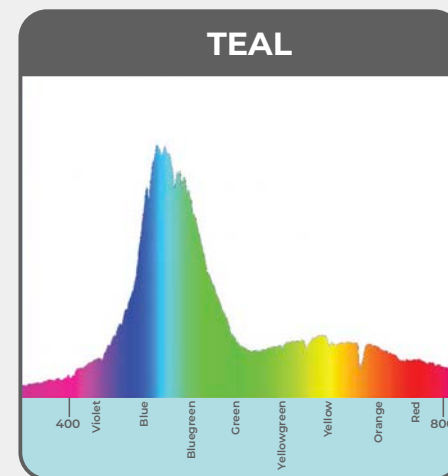
Lavender Migraine/Headache relief, reduces eye strain, photophobia (especially in fluorescent and outdoor lights).



Migraine 55 Migraine relief, photophobia, eye strain relief.



Red Migraine relief, reduces glare, improves contrast, enhances depth perception, great for driving can help with some rod monochromatic (achromatopsia) color blind patients. Red is only available in 10.5, 9.0, 7.0, 5.0, 4.0 and 3.0mm.



Teal Headache and migraine relief, reduces glare, mutes visual noise, provides a sharper image, great in low light conditions.

FAQ'S



What is the best tint zone to use for the BioSport and BioMed ?

It is a matter of personal preference, but most people prefer an iris tint (10.5 or 11.5) that covers limbus to limbus. The lenses do change the eye color, especially on loghter eyes. If cosmesis is a concern, ordering a pupil area tint 2mm larger than the average pupil size would be best.

What is the best lens to use for baseball ?

Typically, the amber lens is best for baseball, especially outdoors.

Which tint is used for Red/Green deficiency ?

BioMed red is generally used for color deficiency of this spectrum.

How long do the lenses last and can i wear them every day ?

The BioSport lenses are yearly and can be worn on a daily basis.

What solutions are recommended for cleaning and storage ?

BioTrue is the recommended multipurpose solution. Lens Fresh or Miraflow are recommended for protein build up removal. Peroxide based cleaning systems will fade lens color.

Why is it important to block blue light ?

Blue light contributes to digital eye strain and may increase the risk of macular degeneration.

How do I know which lens is best for light sensitivity ?

Typically, the Sun Tac lens has been used for light-sensitivity but it really depends on the patient and what is triggering the light sensitivity. A thorough discussion with the patient may be needed to determine the best tint to start with. To gauge their sensitivity, it is good to ask if they notice lighting scenarios that trigger this and find out what they are currently doing to manage their sensitivity such as wearing sunglasses or visors indoors.

Is a fitting set available ?

Yes, a fitting set containing the BioSport and BioMed lenses is available. Sample lenses are also available for demo in an 8.6, 14.3, 0.00 edge to edge tint.



S P E C T R U M
I N T E R N A T I O N A L

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