EYEART
LABORATORIES

PRECISION CONTACT LENS AND OPTICS MANUFACTURE

CONTACT LENSES

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EYEART
LABORATORIES

PRECISION CONTACT LENS AND OPTICS MANUFACTURE

Contact lens technology

INNOVATIVE MANUFACTURING

EYEART founded aiming the manufacture of high quality contact lenses and the provision of customized fitting even in patients with complex vision correction disorders.

The search for different parameters and materials, essential to the correct fitting of contact lenses, resulted in the creation of a modern manufacturing unit.

MANUFACTURING METHOD

Focusing insufficiently corrected refractive errors and aberrations, we have adopted CNC lathing technology, thus achieving high precision manufacture (0,005 mm).

By using "Calculens", a versatile contact lens designing software we are able to resolve individualized fitting and vision correction cases.

CONTACT LENSES MANUFACTURED BY EYEART

Soft spherical correction lenses from -35.00 to +40.00 diopters.

Soft Toric lenses Cylinder Power to -12.0 diopters and aspheric from -30.00 to + 25.00 diopters.

Soft aspheric multifocal lenses for Presbyopia with aspheric correction from -18.00 to +18.00 diopters, astigmatic to -9.00 diopters and near addition up to +3.00 diopters.

Soft aspheric correction lenses for Keratoconus with control of high order aberration correction.

Gas Permeable (GP) spherical and aspheric correction lenses from -35.00 to +40.00 diopters.

Gas Permeable (GP) Toric lenses (optical zone or/and periphery) for astigmatism correction over 1.50 diopters.

Gas Permeable (GP) aspheric multifocal correction.

ACCESS
PROSTHETIC

LAMDA
POST REFRACTIVE

DELTA
TORIC

DELTA
CONUS

OMEGA NEAR
MULTIFOCAL

Soft contact lenses

SOFT HYDROPHILIC LENSES

1. **ALPHA & ALPHA 6**
   Aspheric fitting
2. **LAMDA & LAMDA 6**
   Inverse geometry aspheric for a flat cornea
3. **DELTA & DELTA 6**
   Soft toric
4. **DELTA CONUS & DELTA CONUS 6**
   Soft, toric, for keratoconus
5. **ACCESS PROSTHETIC**
   Soft prosthetic
6. **OMEGA NEAR**
   Multifocal (center near)

EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

MANUFACTURING MATERIALS FOR SOFT CONTACT LENSES

USED BY EYEART LABORATORIES

	DEFINITIVE	GM Advance 49	Contaflex 67	Contaflex 75	VSO 42
Manufacturer	Contamac	Contamac	Contamac	Contamac	Vista Optics
Dk Fat ISO 9913 -1	60/44	16/12	30/22	43/32	12
Material Type	Silicon Hydrogel	GMA Hydrogel	Hydrogel + NVP	Hydrogel + NVP	Hydrogel + NVP
Classification	Filcon V3	Filicon I1 (acofilcon B)	Filcon II2	Filcon II3	Filcon I1
Water Content %	74%	49%	67%	78%	42%
Refraction Index	1,37	1.41	1.39	1.37%	1.43
Normal Tear Film	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Low Volume Tear Secretion	✓✓✓	✓✓	✓	✓	✓✓
Excessive Tear Secretion	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Intense Lipids	✓✓	✓✓	✓	✓	✓✓✓
Intense Proteins	✓✓	✓✓	✓	✓	✓✓
Low Volume Dehydration	✓✓✓	✓✓	✓	✓	✓✓
Initial Comfort	✓✓	✓✓✓	✓✓	✓✓✓	✓✓
Wettability of Surfaces	✓✓✓	✓✓✓	✓✓	✓✓	✓✓
Eye Dryness	✓✓✓	✓✓	✓	✓	✓✓
Non Ionic	✓	✓	✓	✓	✓

ALPHA ASPHERIC

Myopia, Hyperopia
Best lens for a new user

ALPHA ASPHERIC 6 (up to six months)

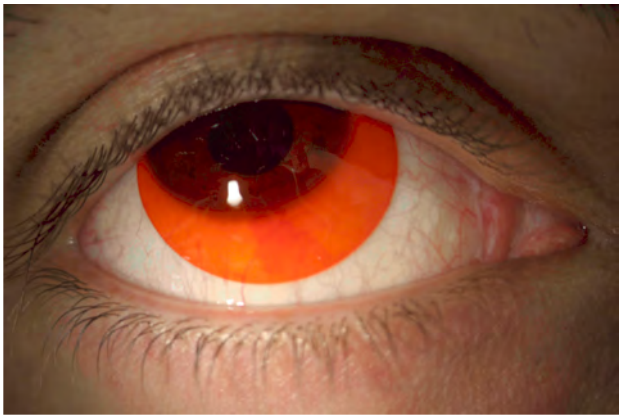
A spherical lens, with a minimal thickness edge design, disposable after 3 or 6 months, depending on the material chosen. It is indicated for even the most demanding users, providing maximum comfort.

Available Parameters:

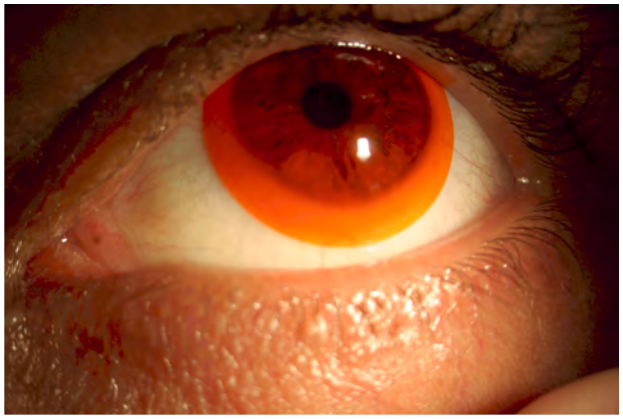
Indications:	Myopia Hyperopia	Base curves:	7.80 up to 9.40 mm (Medium bc recommended 8.60 mm)
		Diopters:	+40.00 to -35.00 in 0.25 D
		Diameters:	14.20 (additional parameters are available)
		Optical Zone:	9.00 @ -3.00 D
		Materials:	Definitive H2O: 74% (**Silicon Hydrogel Dk 60**) up to 3 Month Replacement HEMA – NVP H2O: 67% (secondary material – upon request, 6 months replacement)

The geometry of the ALPHA 6 lenses is such that can be customized according to the fitter's choices. It meets the needs of a demanding fitter, who requires a wide variety of parameters, such as the diameter, the precise curvature and the material.

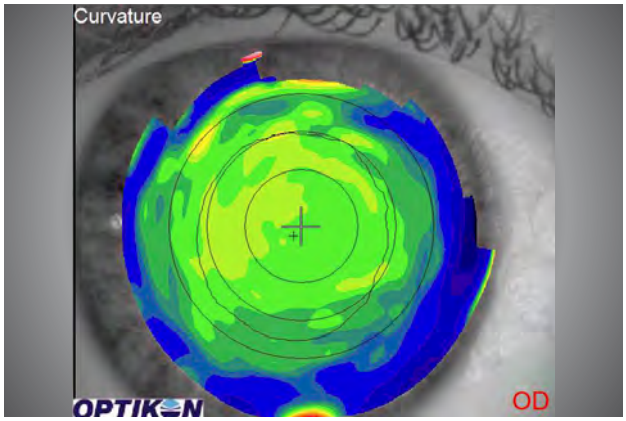
Recommended Disinfection Systems: Peroxide systems and chemical like Optifree



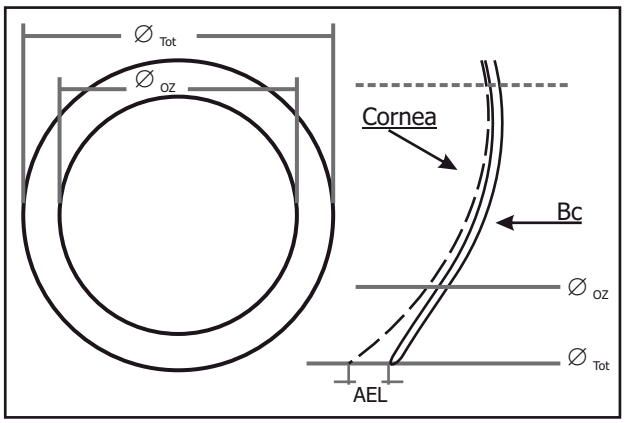
ALPHA 6 flat fitting example



ALPHA 6 correct fitting example



Spherical cornea topography example



ALPHA 6 contact lens designing

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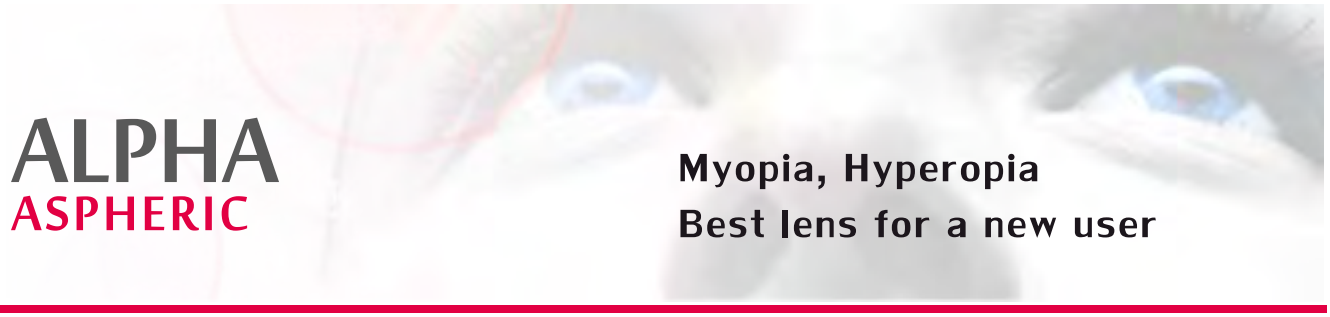


ALPHA 6 ASPHERIC

Myopia, Hyperopia
Best lens for a new user

ALPHA (6) BASIC FITTING INSTRUCTIONS

BASE CURVE: The fitting is performed for the majority of cases with BC 8.60 mm and a 14.20 diameter (for keratometric from 7.70 up to 8.10mm). More detailed parameters are possible if a trial lens is used.

DETAILED FITTING INSTRUCTIONS

DIAMETER: Select the diameter by adding 2 mm to the Horizontal Visible Iris Diameter.

MATERIAL: EYEART recommends the use of Definitive silicone hydrogel Dk 60. If the fitter needs a more elastic material, HEMA-NVP 67% can be used.

FITTING CHECK

The trial lens is fitted and checked after 10 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be satisfactorily centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The lids are kept open so as not to touch the lens. With the lower lid push the lens upwards. Observe the lens repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and it often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The curvature of the lens is checked with macroscopic observation. When it is steep, we usually increase by 0.20mm. We decrease accordingly by 0.20 mm when it is flat. The diameter of the lens is checked in the slit-lamp (without the extra 2.00 mm of the cornea). Providing that we have selected the correct curvature, when, while blinking, the edge of the lens touches corneal limbus, we increase the diameter by 0.50 mm.

ALPHA ASPHERIC

Myopia, Hyperopia
Best lens for a new user

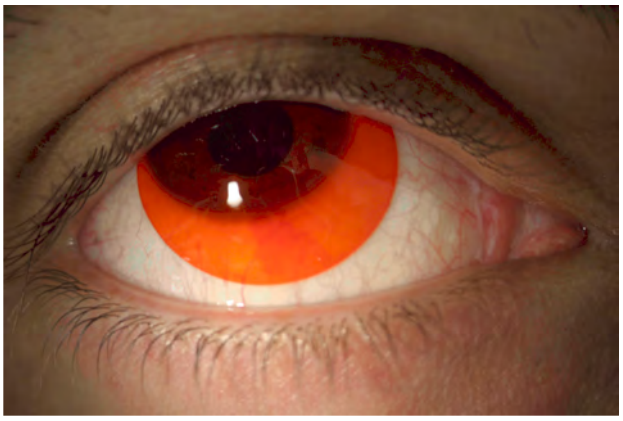
ALPHA ASPHERIC

A spherical lens, with a minimal thickness edge design. It is indicated for even the most demanding users, providing maximum comfort.

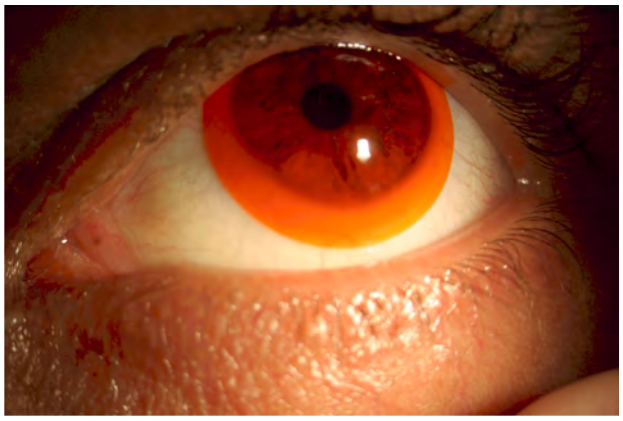
Available Parameters:

Indications:	Myopia Hyperopia
Base curves:	7.80 up to 9.40 mm (Medium bc recommended 8.60 mm)
Diopters:	+40.00 to -35.00 in 0.25 D
Diameters:	14.20 (additional parameters are available)
Optical Zone:	9.00 @ -3.00 D
Materials:	GM Advance 49% HEMA 42% (secondary material – upon request)

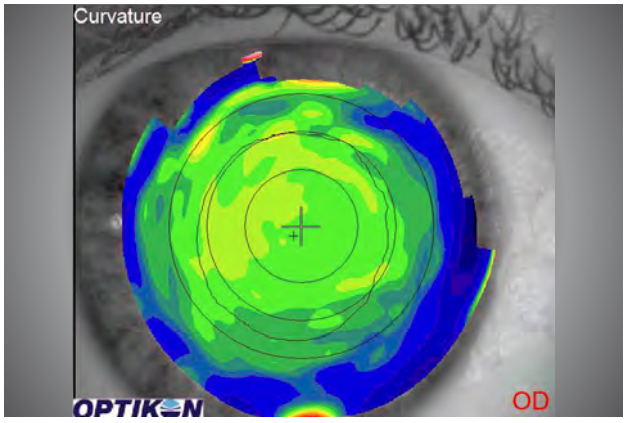
The geometry of the ALPHA lenses is such that can be customized according to the fitter's choices. It meets the needs of a demanding fitter, who requires a wide variety of parameters, such as the diameter, the precise curvature and the material.



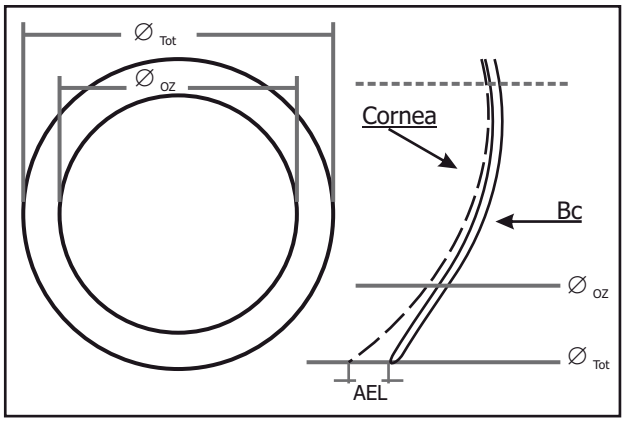
ALPHA flat fitting example



ALPHA correct fitting example



Spherical cornea topography example



ALPHA contact lens designing

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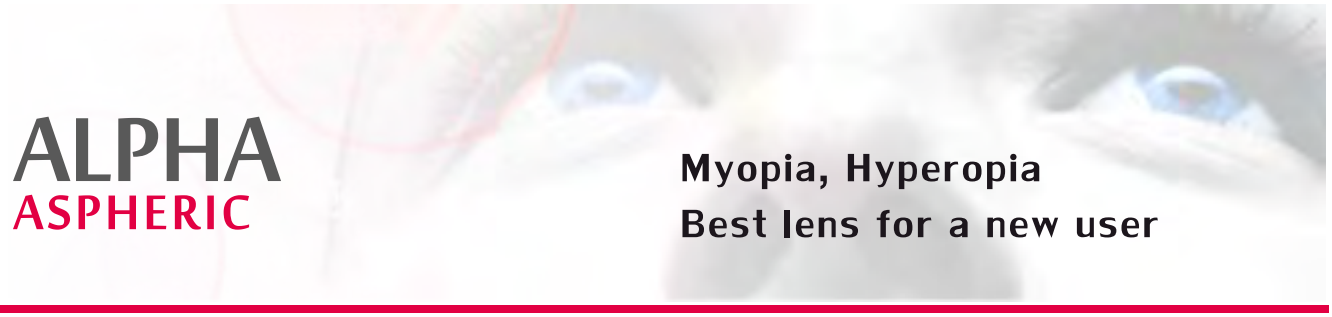


ALPHA ASPHERIC

Myopia, Hyperopia
Best lens for a new user

ALPHA BASIC FITTING INSTRUCTIONS

BASE CURVE: The fitting is performed for the majority of cases with Be 8.60 mm and a 14.20 diameter (for keratometric from7.70 up to 8.10mm). More detailed parameters are possible if a trial lens is used.

DETAILED FITTING INSTRUCTIONS

DIAMETER: Select the diameter by adding 2mm to the Horizontal Visible Iris Diameter (HIVD)

MATERIAL: Concerning the material, EYEART recommends the use of GM Advance 49% and in low tear volume cases HEMA 42%.

FITTING CHECK

The diagnostic lens is fitted and checked after 10 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The eyelids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The curvature of the lens is checked with macroscopic observation. When it is steep, we usually increase by 0.20mm. We decrease accordingly by 0.20 mm when it is flat. The diameter of the lens is checked in the slit-lamp (without the extra 2.00 mm of the cornea). Providing that we have selected the correct curvature, when, while blinking, the edge of the lens touches the corneal limbus, we increase the diameter by 0.50 mm.

LAMDA POST REFRACTIVE 6

The ideal lens
for a flat cornea

LAMDA POST REFRACTIVE 6 (up to six months)

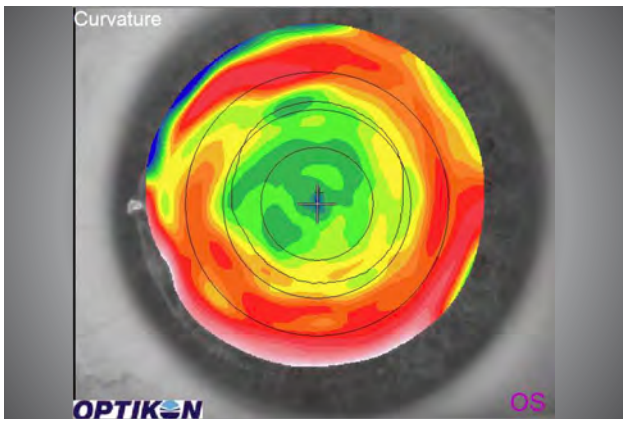
A soft, inverse geometry aspheric lens, ideal for cases of a flat cornea after a PK, PRK, LASIK, replaced after 3 or 6 months, depending on the material chosen. It is the soft lens which solves the centration problems of a flat cornea. Due to the inverse geometry (the periphery is steeper than the center) and the customization offered by EYEART, it can be fitted to any centrally flat cornea.

Available Parameters:

Indications:	Myopia Hyperopia Cases in which the conventional geometries do not fit correctly: Refractive surgery, Transplanted corneas Post-traumatic corneas	Base curves:	Medium: refraction before the procedure up to -6.00 D High: refraction before the procedure >-6.00 D
		Diopters:	25.00 to -30.00 in 0.25 D
		Diameters:	14.50mm (additional parameters are available)
		Optical Zone:	8.00mm at -3.00 D
		Optical Design:	Aspheric
		Fitting:	Reverse geometry
		Materials:	Definitive H2O: 74%, up to 3 Months Replacement (Silicone Hydrogel Dk 60), HEMA – NVP H2O: 67%

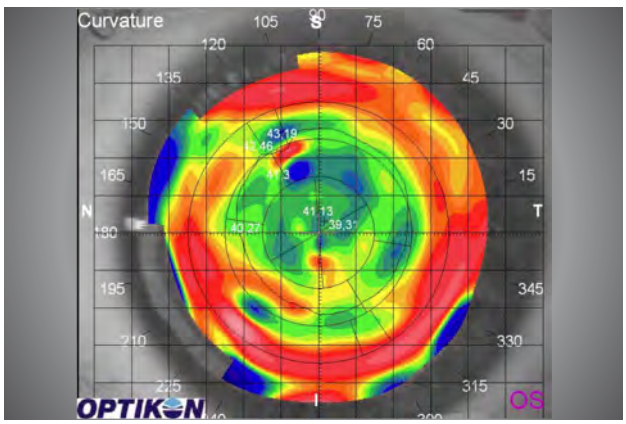
The LAMDA lens will fulfil any case where one of the Alpha series lenses cannot be fitted. It is indicated when the required correction is spherical.

Recommended Disinfection Systems: Peroxide systems and chemical like Optifree

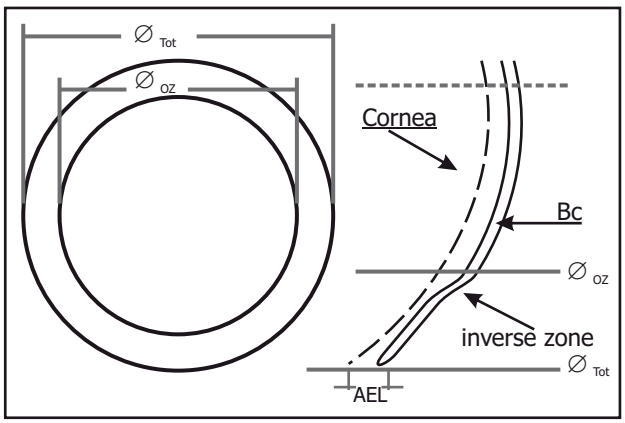


Example of the topography after a refractive surgery


LAMDA 6 correct fitting example



Example of the topography after a refractive surgery



Multi-aspheric **LAMDA 6** contact lens designing

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LAMDA 6
POST REFRACTIVE

The ideal lens
for a flat cornea

LAMDA 6 BASIC FITTING INSTRUCTIONS

For the fitting of the LAMDA lenses provide central keratometric values and possibly peripheral if available from topography.

STEP 1: Refraction before the procedure is known. (Otherwise, order the Medium fitting)

STEP 2: Perform spherical over-refraction.

STEP 3: Select the material.

DETAILED FITTING INSTRUCTIONS

DIAMETER: Select the diameter by adding 2mm to Horizontal Iris Visible Diameter (HIVR)

MATERIAL: Concerning the material, EYEART recommends the use of Definitive silicone hydrogel Dk 60. If the fitter requires a more elastic material, HEMA-NVP 67% can be used.

FITTING CHECK

The trial lens is fitted and checked after 10 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The eyelids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

EYEART can provide any contact lens required for each case. In the case of asymmetric astigmatism the DELTA CONUS can be fitted.

LAMDA POST REFRACTIVE

The ideal lens
for a flat cornea

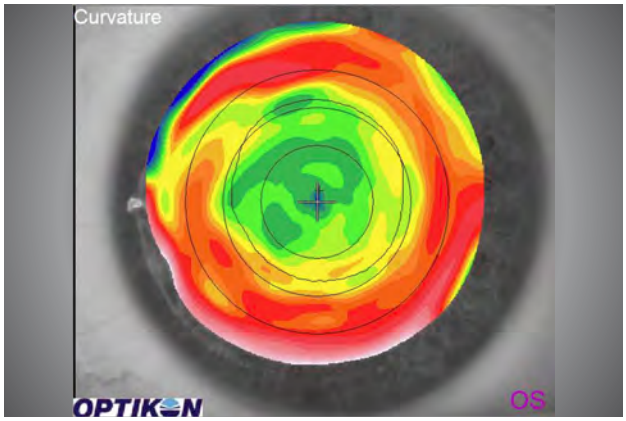
LAMDA POST REFRACTIVE

A soft, inverse geometry aspheric lens, ideal for cases of a flat cornea after a PK, PRK, LASIK. It is the soft lens which solves the focus problems of a flat cornea. Due to the inverse geometry (the periphery is steeper than the center) and the customization offered by EYEART, it can be fitted to any centrally flat cornea.

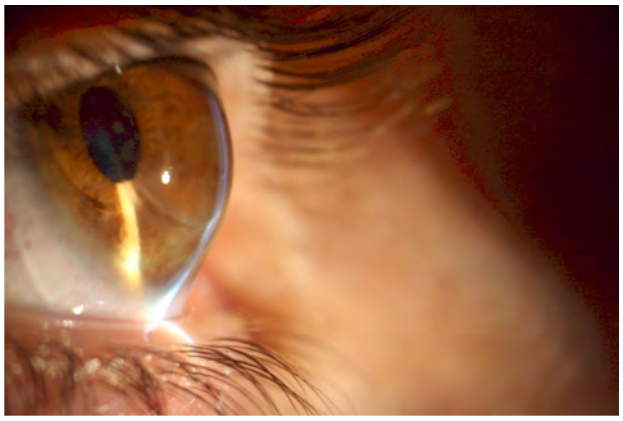
Available Parameters:

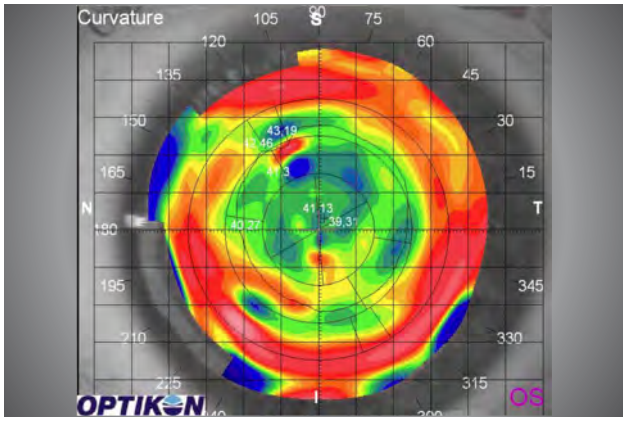
Indications:	Myopia Hyperopia Cases in which the conventional geometries do not fit correctly: Refractive surgery, Transplanted corneas Post-traumatic corneas
Base curves:	Medium: refraction before the procedure up to -6.00 D High: refraction before the procedure >-6.00 D
Diopters:	25.00 to -30.00 in 0.25 D
Diameters:	14.50mm (additional parameters are available)
Optical Zone:	8.00mm at -3.00 D, aspheric
Optical Design:	Aspheric
Fitting:	Reverse geometry
Materials:	Materials: GM Advance 49%, 42% HEMA (secondary material, upon request)

The LAMDA lens will fulfil any case where one of the Alpha series lenses cannot be fitted. It is indicated when the required correction is spherical.

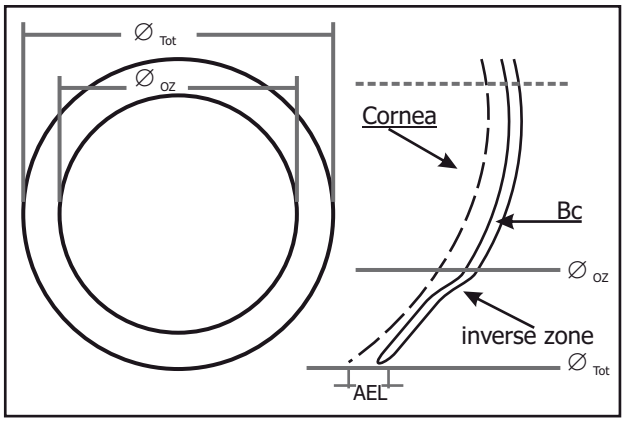


Example of the topography after a refractive surgery


LAMDA correct fitting example



Example of the topography after a refractive surgery



Multi-aspheric **LAMDA** contact lens designing

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LAMDA
POST REFRACTIVE

The ideal lens
for a flat cornea

LAMDA BASIC FITTING INSTRUCTIONS

For the fitting of the LAMDA lenses provide central keratometric values and possibly peripheral if available from topography.

STEP 1: Refraction before the procedure is known. (Otherwise, order the Medium fitting)

STEP 2: Perform spherical over-refraction.

STEP 3: Select the material.

DETAILED FITTING INSTRUCTIONS

DIAMETER: Select the diameter by adding 2mm to Horizontal Iris Visible Diameter (HIVR)

MATERIAL: Concerning the material, EYEART recommends the use of Definitive silicone hydrogel Dk 60. If the fitter requires a more elastic material, HEMA-NVP 67% can be used.

FITTING CHECK

The diagnostic lens is fitted and checked after 10 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The eyelids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

EYEART can provide any contact lens required for each case. In the case of asymmetric astigmatism the DELTA CONUS can be fitted.

DELTA TORIC

Thin, comfortable and ideal for everyday use

DELTA TORIC 6 (up to 6 months)

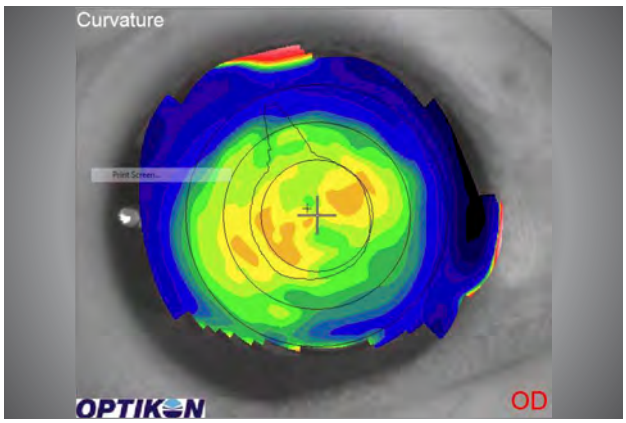
A soft, toric lens, replaced after 3 or 6 months, depending on the material used: The DELTA toric lens has been statistically proven to be the most effective toric lens (95% success in the first fitting). With practically unlimited correction potential, its optical design guarantees total vision correction. The designing of the fitting ensures a thin, comfortable lens for everyday use.

Available Parameters:

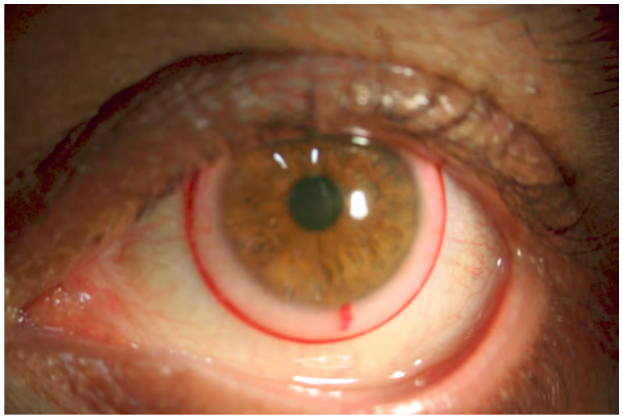
Indications: Astigmatism
Early keratoconus
Pellucid degeneration

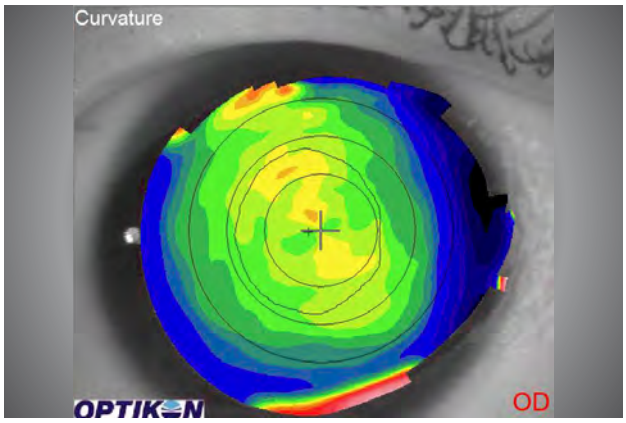
Base curves:	7.80 up to 9.60 mm in 0.10
Sphere:	+25.00 to -30.00 in 0.25 D
Diameters:	14.50mm (additional parameters are available)
Astigmatism:	up to -6.00 D in 0.25 D
Central Thickness:	0.10 mm @ -5.00
Materials:	Definitive H2O: 74% (**Silicon Hydrogel Dk 60**) 3 month replacement, HEMA – NVP H2O: 67% (Secondary material – upon request)

The DELTA 6 lens has been optically designed to provide the user with maximum optical performance and the fitter with the confidence required, especially in cases of astigmatism over 2.00 diopters. The stabilization method is prismodynamic, balancing the comfort of the eyelids and the stability which is essential.
Recommended Disinfection Systems: Peroxide systems and chemical like Optifree

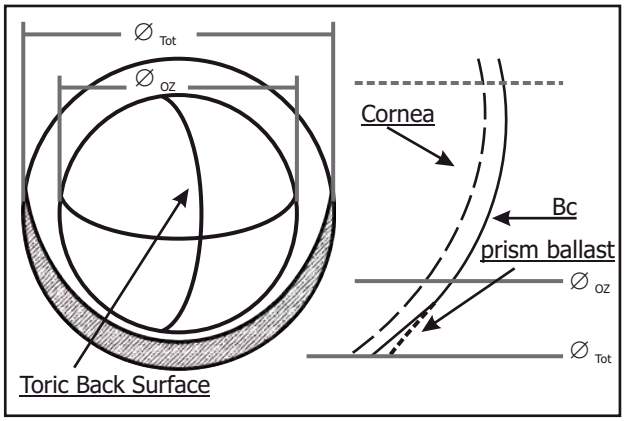


Corneal obllique astigmatism topography example


DELTA 6 correct fitting example



Toric cornea (with-the-rule) topography example



DELTA 6 contact lens designing

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DELTA TORIC

Thin, comfortable and ideal for everyday use

DELTA 6 BASIC FITTING INSTRUCTIONS

MATERIAL: Concerning the material, EYEART recommends the use of Definitive silicone hydrogel Dk 60. If the fitter requires a more elastic material, HEMA-NVP 67% can be used.

STEP 1: By using EYEART's algorithms, the DELTA lens can be ordered without a trial fitting by giving the following information:

-Keratometric readings (e.g. 7, 90/ 7, 60@90)
-Glass refraction (e.g. -5,00 - Cyl. -3,00 x 180)
-Material

STEP 2: In case, a DELTA or DELTA 6 trial lens is used, check marking line at the 6th o clock for possible rotation and we note it down (e.g. right eye, 15 degrees rotation in the temporal region LARS)

FITTING CHECK

The diagnostic lens is fitted and checked after 10 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The eyelids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The curvature of the lens is checked with macroscopic observation. When it is steep, we usually increase by 0.20mm. We decrease accordingly by 0.20 mm when it is flat. The diameter of the lens is checked in the slit-lamp (without the extra 2.00 mm of the cornea). Providing that we have selected the correct curvature, when, while blinking, the edge of the lens touches the corneal limbus, we increase the diameter by 0.50 mm.

DETAILED FITTING INSTRUCTIONS

The toric DELTA (6) lens may not provide maximum visual acuity only if:

1. The over-refraction is not accurate.
2. There is rotation which must be corrected (over 10 degrees for astigmatism up to 2.00 D and over 5 degrees for astigmatism over 2.00 D)
3. There is steep or flat fitting which affects the stability of the optical effect due to movement or distortion of the optical zone, respectively.
4. The corneal or internal astigmatism is asymmetric.

DELTA TORIC

Thin, comfortable and ideal for everyday use

DELTA TORIC

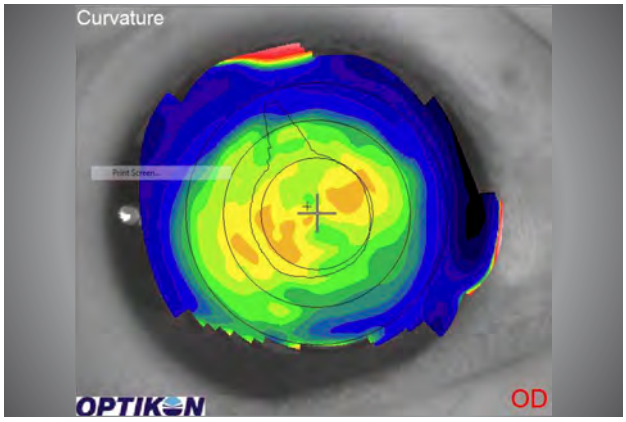
The DELTA toric lens has been statistically proven to be the most effective toric lens (95% success in the first fitting). With practically unlimited correction potential, its optical design guarantees total vision correction. The designing of the fitting ensures a thin, comfortable lens for everyday use.

Available Parameters:

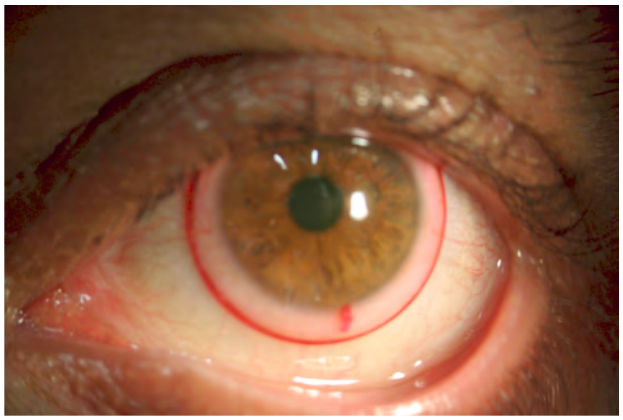
Indications: Astigmatism
Early keratoconus
Pellucid degeneration

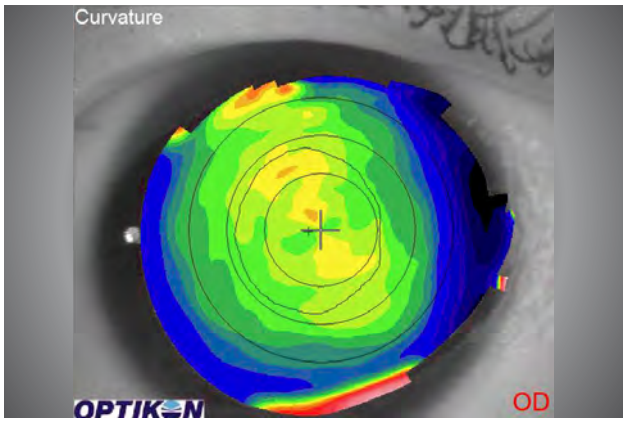
Base curves:	7.80 up to 9.60 mm in 0.10
Sphere:	+25.00 to -30.00 in 0.25 D
Diameters:	14.50mm (additional parameters are available)
Astigmatism:	up to -12.00 D
Central Thickness:	0.10 mm @ -5.00
Materials:	GM Advance 49%
	HEMA 42% (Secondary material – upon request)

The DELTA lens has been optically designed to provide the user with maximum optical performance and the fitter with the confidence required, especially in cases of astigmatism over 2.00 diopters. The stabilization method is prismodynamic, balancing the comfort of the eyelids and the stability which is essential.

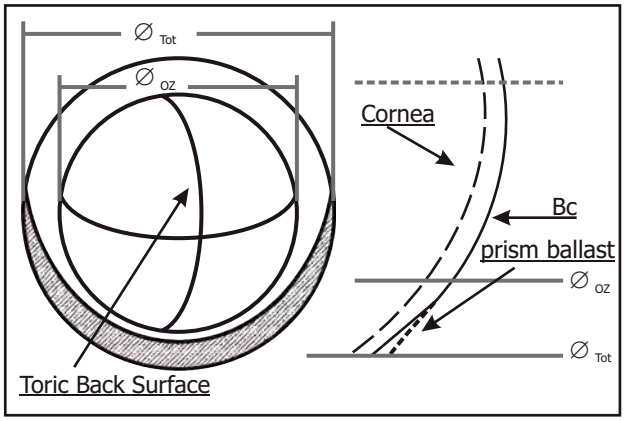


Corneal oblique astigmatism topography example


DELTA correct fitting example



Toric cornea (with-the-rule) topography example



DELTA contact lens designing

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DELTA TORIC

Thin, comfortable and ideal for everyday use

DELTA BASIC FITTING INSTRUCTIONS

MATERIAL: GM Advance 49%
HEMA 42% (Secondary material – upon request)

STEP 1: By using EYEART's algorithms, the DELTA lens can be ordered without a trial fitting by giving the following information:

- Keratometric readings (e.g. 7, 90/ 7, 60@90)
- Glass refraction (e.g. -5,00 - Cyl. -3,00 x 180)
- Material

STEP 2: In case, a DELTA or DELTA 6 trial lens is used, we check marking line at the 6th o clock for possible rotation and we note it down (e.g. right eye, 15 degrees rotation in the temporal region LARS)

FITTING CHECK

The lens is fitted and checked after 15 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The push-up method: The eyelids are kept open so as not to touch the lens. With the lower lid we push the lens downward. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular upward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and often goes downward, beyond the correctly centered position in front of

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The curvature of the lens is checked with macroscopic observation. When it is steep, we usually increase by 0.20mm. We decrease accordingly by 0.20 mm when it is flat. The diameter of the lens is checked in the slit-lamp (without the extra 2.00 mm of the cornea). Providing that we have selected the correct curvature, when, while blinking, the edge of the lens touches the corneal limbus, we increase the diameter by 0.50 mm.

DETAILED FITTING INSTRUCTIONS

The toric DELTA lens may not provide maximum visual acuity only if:

1. The over-refraction is not accurate.
2. There is rotation which must be corrected (over 10 degrees for astigmatism up to 2.00 D and over 5 degrees for astigmatism over 2.00 D)
3. There is steep or flat fitting which affects the stability of the optical effect due to movement or distortion of the optical zone, respectively.
4. The corneal or internal astigmatism is asymmetric.

DELTA CONUS 6

The most comfortable and easy to use lens for any case of keratoconus and transpalnted cornea

DELTA CONUS 6 (up to 6 months)

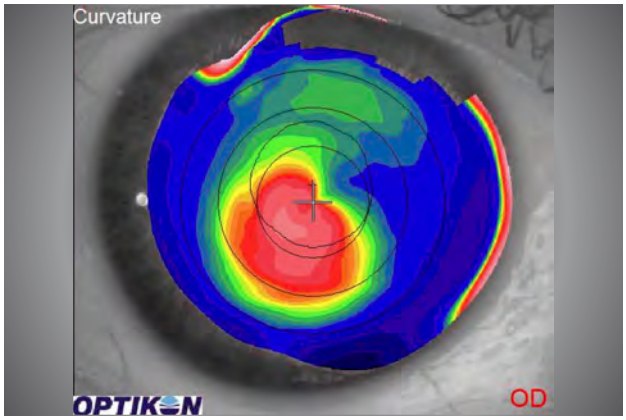
A soft lens for any case of keratoconus and transplanted cornea, replaced after 3 or 6 months depending on the material used. The most comfortable and easy to use soft lens for all types of keratoconus and transplanted cornea.

Available Parameters:

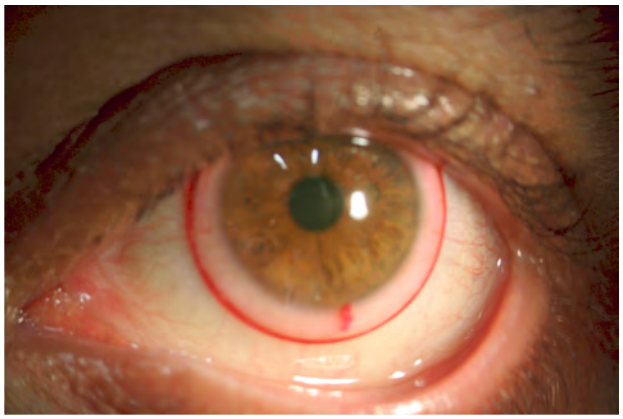
Indications: Keratoconus
Post- graft
Irregular astigmatism

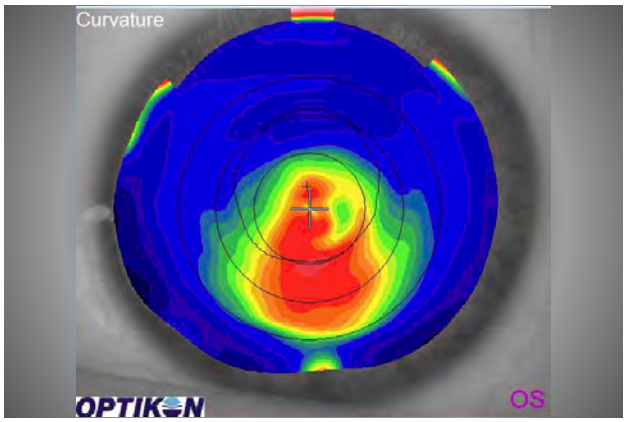
Base curves:	7.80 up to 9.60 mm in 0.10
Sphere:	25.00 to -30.00 in 0.25 D
Diameters:	14.50mm (up to 15.00)
Astigmatism:	-0.25 to -6.00 in 0.25 D
Central Thickness:	0.30 up to 0.45 mm
Materials:	Definitive H2O: 74% (**Silicon hydrogel Dk 60**)
	3 months replacement
	HEMA – NVP H2O: 67%
	(Secondary material – upon request)

It is also fitted in cases of irregular astigmatism caused by injury or corneal procedure.
Recommended Disinfection Systems: Peroxide systems and chemical like Optifree

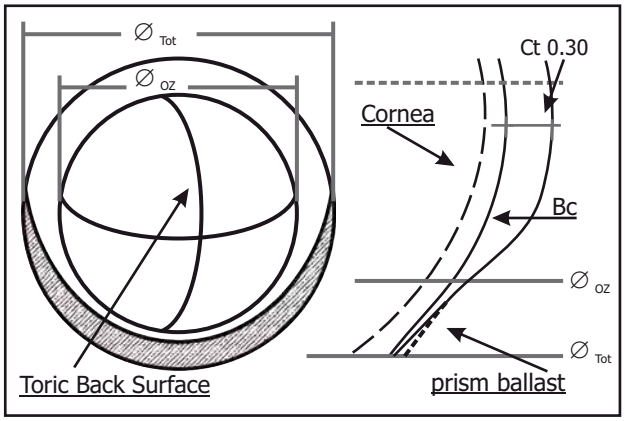


Example of the topography of a decentered corneal cone


Example of the observation
of the alignment line at the 6th o clock



Example of the topography
of a downwards decentered corneal cone



DELTA Conus 6 contact lens designing

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DELTA CONUS 6

The most comfortable and easy to use lens
for any case of
keratoconus and transpalnted cornea

DELTA CONUS 6 BASIC FITTING INSTRUCTIONS

STEP 1: Fit the 8.50 lens and check the fitting after 5 minutes. If fitting is satisfactory, leave the lens to settle for another 15 minutes.
If fitting is steep, fit the lens with 8.70 curvature and repeat step 1.
If fitting is flat, fit the lens with 8.30 curvature and repeat step 1.

STEP 2: Check the marking line at 6 o'clock for possible rotation.

STEP 3: Perform an over-refraction

STEP 4: Order the lens giving the following information:
1. Diagnostic lens used
2. Over-refraction
3. Possible rotation. Note rotation direction and amplitude (for example RE 10 degrees nasally)
4. Material

MATERIAL: Concerning the material, EYEART recommends the use of Definitive silicone hydrogel Dk 60. If the fitter requires a more elastic material, HEMA-NVP 67% can be used.

FITTING CHECK

The trial lens is fitted and checked after 15 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The eyelids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and often goes downward, beyond the correctly centered position in front of the cornea.

DELTA CONUS

The most comfortable and easy to use lens for any case of keratoconus and transpalnted cornea

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The curvature of the lens is checked with macroscopic observation. When it is steep, we usually increase by 0.20mm. We decrease accordingly by 0.20 mm when it is flat. The diameter of the lens is checked in the slit-lamp (without the extra 2.00 mm of the cornea). Providing that we have selected the correct curvature, when, while blinking, the edge of the lens touches the corneal limbus, we increase the diameter by 0.50 mm.

Diagnostic Fitting Set
3 lenses 8.30, 8.50, 8.70

DETAILED FITTING INSTRUCTIONS

The toric DELTA CONUS lens may not provide maximum visual acuity only if:

1. The over-refraction is not accurate.
2. There is rotation which must be corrected (over 10 degrees for astigmatism up to 2.00 D and over 5 degrees for astigmatism over 2.00 D)
3. There is steep or flat fitting which affects the stability of the optical correction due to movement or distortion of the optical zone.

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EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

DELTA CONUS

The most comfortable and easy to use lens for any case of keratoconus and transpalnted cornea

DELTA CONUS

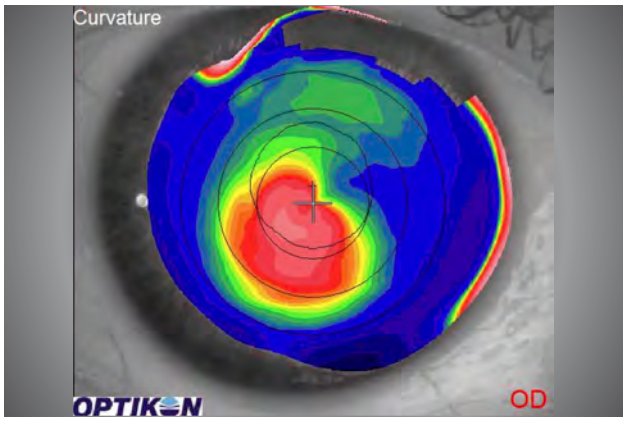
A soft lens for any case of keratoconus and transplanted cornea. The most comfortable and easy to use soft lens for all types of keratoconus and transplanted cornea.

Available Parameters:

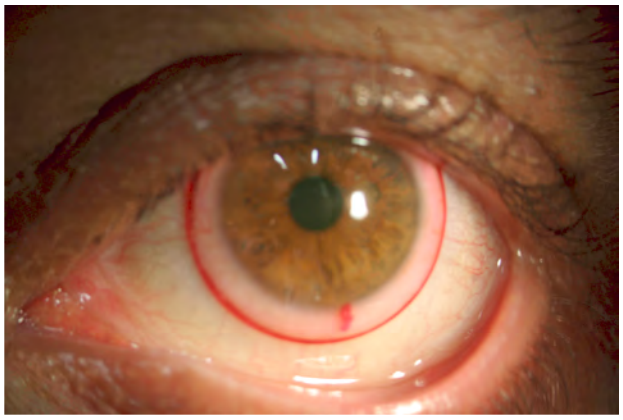
Indications: Keratoconous
Post graft
Irregular astigmatism

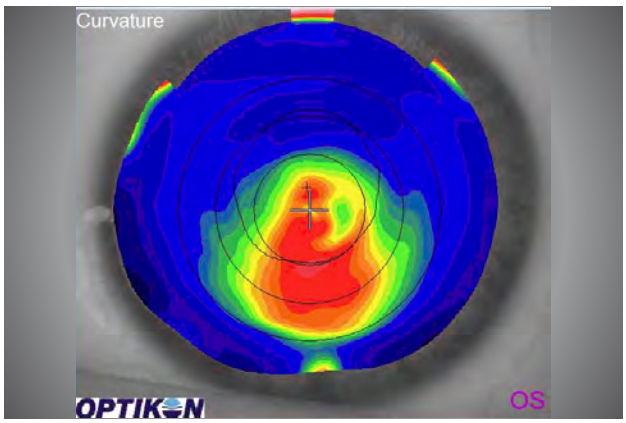
Base curves:	7.80 up to 9.60 mm in 0.10
Sphere:	25.00 to -30.00 in 0.25 D
Diameters:	14.50mm (up to 15.00)
Astigmatism:	-0.25 to -12.00 in 0.25 D
Central Thickness:	0.30 up to 0.45 mm
Materials:	GM Advance 49%
	HEMA 42%
	(Secondary material – upon request)

It is also fitted in cases of irregular astigmatism caused by injury or corneal procedure.

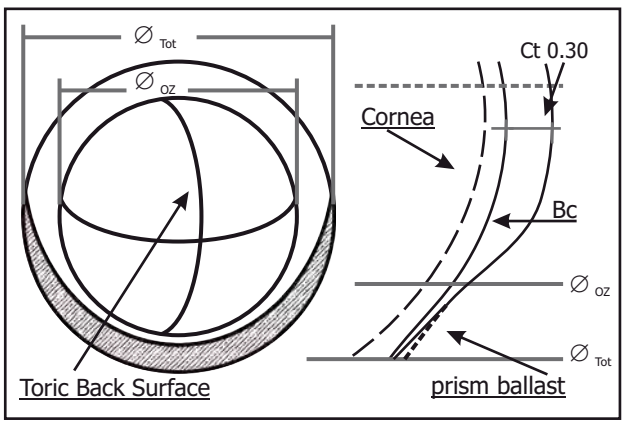


Example of the topography of a decentered corneal cone


Example of the observation
of the torsion line at the 6th hour



Example of the topography
of a downwards decentered corneal cone



Designing of the multi-aspheric
DELTA CONUS contact lens

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DELTA CONUS

The most comfortable and easy to use lens for any case of keratoconus and transpalnted cornea

DELTA CONUS BASIC FITTING INSTRUCTIONS

STEP 1: Fit the 8.50 lens and check the fitting after 5 minutes. If fitting is satisfactory, leave the lens to settle for another 15 minutes.
If fitting is steep, fit the lens with 8.70 curvature and repeat step 1.
If fitting is flat, fit the lens with 8.30 curvature and repeat step 1.

STEP 2: Check the marking line at 6 o'clock for possible rotation.

STEP 3: Perform an over-refraction

STEP 4: Order the lens giving the following information:
1. Diagnostic lens used
2. Over-refraction
3. Possible rotation. Note rotation direction and amplitude (for example RE 10 degrees nasally)
4. Material

MATERIAL: Concerning the material, EYEART recommends the use of Definitive silicone hydrogel Dk 60. If the fitter requires a more elastic material, HEMA-NVP 67% can be used.

FITTING CHECK

The trial lens is fitted and checked after 15 minutes.

IN THE SLIT LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

MACROSCOPIC OBSERVATION
PUSH-UP METHOD The eyelids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and often goes downward, beyond the correctly centered position in front of the cornea.

DELTA CONUS

The most comfortable and easy to use lens for any case of keratoconus and transpalnted cornea

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The curvature of the lens is checked with macroscopic observation. When it is steep, we usually increase by 0.20mm. We decrease accordingly by 0.20 mm when it is flat. The diameter of the lens is checked in the slit-lamp (without the extra 2.00 mm of the cornea). Providing that we have selected the correct curvature, when, while blinking, the edge of the lens touches the corneal limbus, we increase the diameter by 0.50 mm.

Diagnostic Fitting Set
3 lenses **8.30, 8.50, 8.70**

DETAILED FITTING INSTRUCTIONS

The DELTA CONUS lens may not provide maximum visual acuity only if:

1. The over-refraction is not accurate.
2. There is rotation which must be corrected (over 10 degrees for astigmatism up to 2.00 D and over 5 degrees for astigmatism over 2.00 D)
3. There is steep or flat fitting which affects the stability of the optical correction due to movement or distortion of the optical zone.

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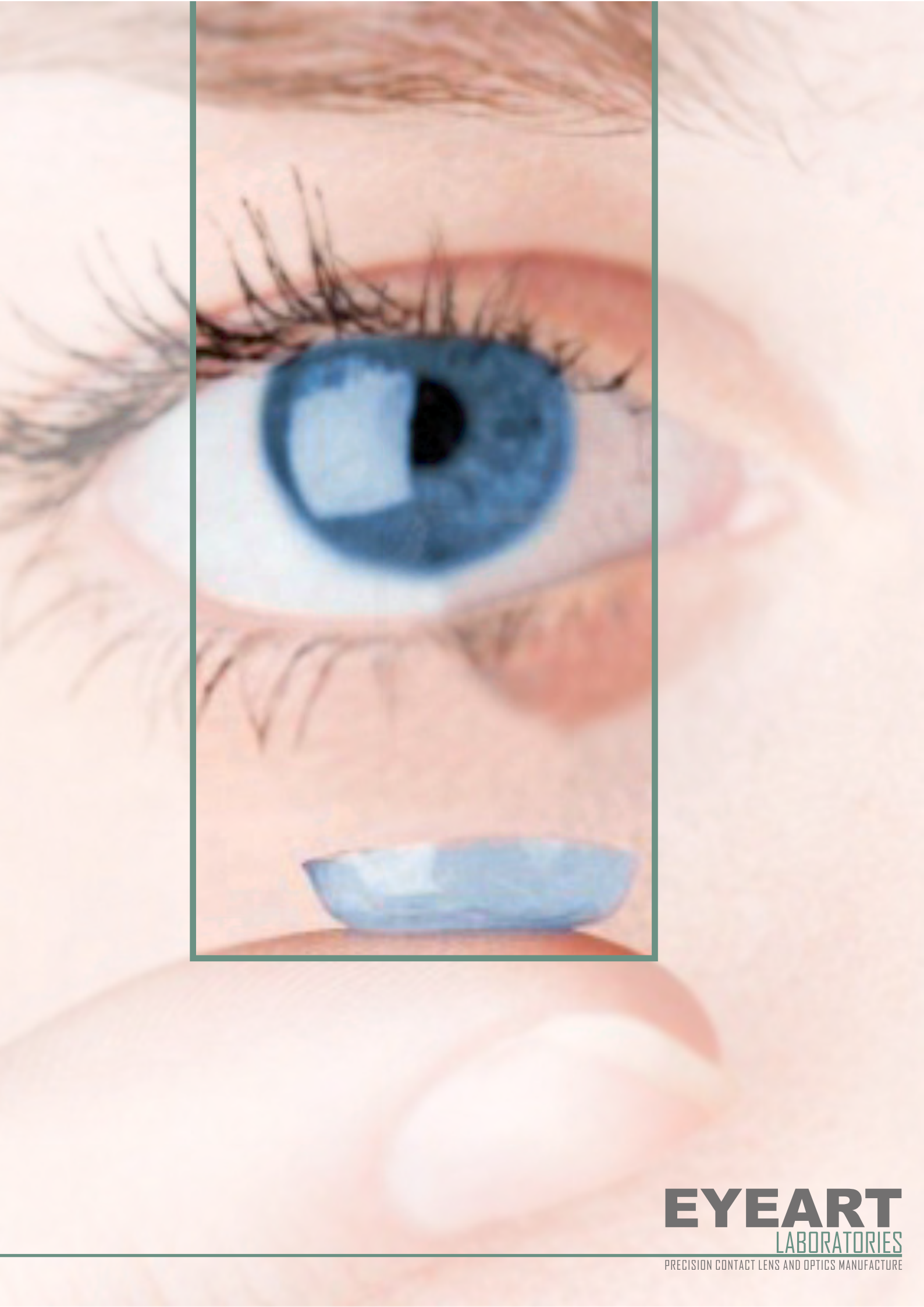


EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

ACCESS PROSTHETIC

Suitable for cosmetic fitting and visual acuity enhancement

ACCESS PROSTHETIC
A soft prosthetic lens.

Available Parameters:

Indications: Partial or total leucoma
Iris coloboma or aniridia
Leukocoria (white pupil)
Heterochromia
Zavalia

DISINFECTION IS ONLY PERFORMED WITH HYDROGEN PEROXIDE SYSTEMS. (especially concerning the lenses with an internal white layer)

Base curves:	7.80 - 9.60 in 0.10 mm (usual 8.60)
Diameters:	13.0mm -15.50 in 0.50 mm (usual 14.50)
Sphere:	-25.00 to +20.00 D
Cylinder:	-0.50 up to –7.00 D in 0.25 D
Iris Diameters:	11.0 – 13.50 in 0.50 mm
Pupil Diameters (transparent or black)	3, 5, 7 mm
Colour:	according to digital photo
Eye colour masking:	opaque white behind the lens's color

CASE CLASSIFICATION ACCORDING TO THE REHABILITATION ROLE OF THE LENS

COSMETIC: In cases where there is no functional vision

FUNCTIONAL: In cases where the lens is required for cosmetic purposes and can at the same time improve visual acuity.

PROSTHETIC CONTACT LENS TYPE SELECTION

In certain cases the soft lenses are not effective because the ideal solution for the user would be a scleral lens. The particularities that define the lens type should be clear to the fitter and the user.

SOFT CONTACT LENS INDICATIONS:
Corneal position (When its position is symmetrical to the fellow eye, thus there is no strabismus present). The cases of a strabismus can be handled with a lens with a displaced iris position according to each case (maximum displacement 1.50 mm).
Eyeball volume (When there is absence of phthisis)
Refraction (When with any refraction, and in certain cases with the use of pinhole correction, the visual acuity of the eye is improved).

SCLERAL CONTACT LENS INDICATIONS:
Eyeball volume (When there is considerable phthisis present)
Vision (When there is no functional vision)
Lens handling (When the handling of the soft lens will result in frequent lens damage)

ACCESS PROSTHETIC

Suitable for cosmetic fitting
and visual acuity enhancement

Explaining the potential of prosthetic restoration:

A prosthetic and/or functional restoration is rarely successful unless the user's needs, targets, subjective satisfaction and the potential of each solution are thoroughly discussed.

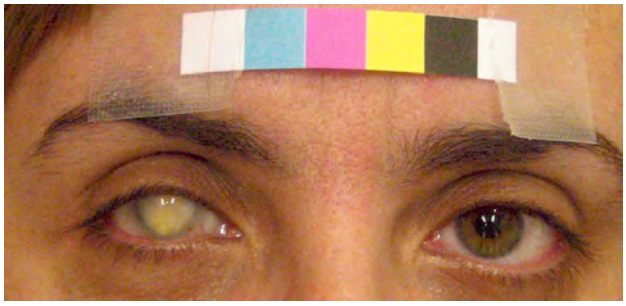
Important points that should be analyzed:

The colour in soft prosthetic lenses is on the surface. This fact brings about some differences concerning the final cosmetic result. The natural iris is a three dimensional folded tissue. This effect is magnified by the cornea-aqueous system, which act as a magnifying lens. Therefore, even in a case of a perfect color matching, there are some differences.

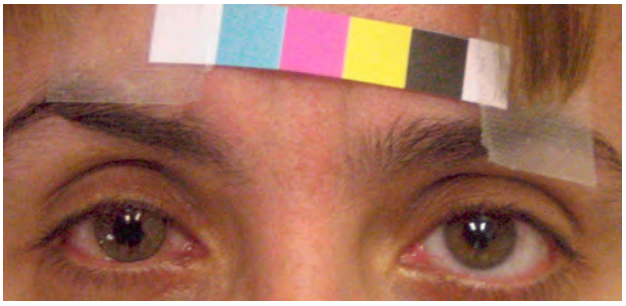
All soft prosthetic lenses manufactured by EYEART are made to order. This means that the color matching is performed in multiple layers and is absolutely customized. This is the reason why it is extremely difficult to manufacture two absolutely identical lenses.

The Access lens replacement depends on the use and the tear film characteristics. The usual replacement is between 12 and 18 months.

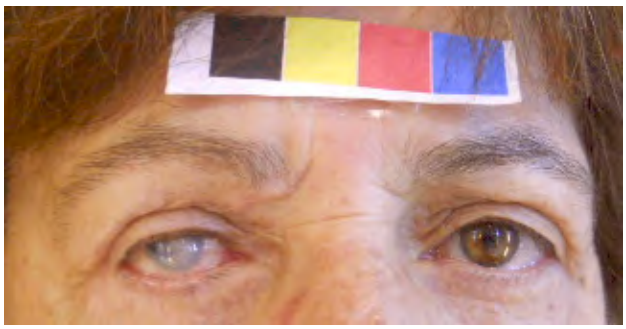
Read the Access fitting manual carefully before the fitting, to achieve maximum outcome.



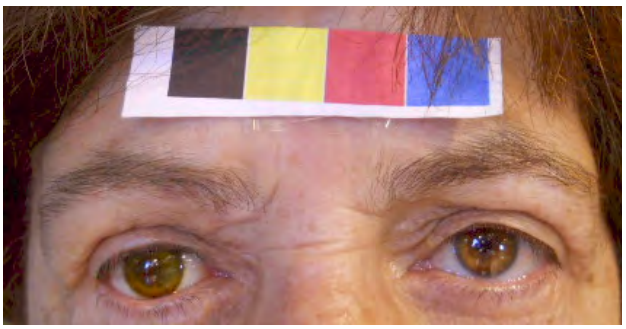
BEFORE fitting **ACCESS** example



AFTER fitting **ACCESS** example



BEFORE fitting **ACCESS** example



AFTER fitting **ACCESS** example

EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

ACCESS PROSTHETIC

Suitable for cosmetic fitting
and visual acuity enhancement

ACCESS PROSTHETIC BASIC FITTING INSTRUCTIONS

1. Measure the eye's corneal curvatures. In the cases which it is not feasible, measure the curvatures of the fellow eye.
2. Note the main problem that requires rehabilitation: cosmetics, photophobia, double-vision, diminished visual acuity due to iris, coloboma, etc
3. Note themedical anamnesis of the eye. (In certain cases a good fitting requires a customized design of the lens)
4. Measure the iris diameter of the healthy eye with a ruler.
5. Measure the photopic and mesopic pupil of the healthy eye.
6. Discuss if the patient mainly moves in areas with intense lighting or not, in order to decide upon the size of the pupil of the ACCESS lens.
7. Use any digital camera and photograph both eyes together from a 35-50cm distance using flash.
8. Having printed next page in your printer, cut out the bottom part (fig. 1) with the color strips. Cut out a strip with all the colors and tape it to the patient's forehead.
9. The photo shoot of the eye should be taken with flash, given that the iris is clearly shown and not affected by the eyelids' shadow.
10. Email the photographs and the rest of the information.

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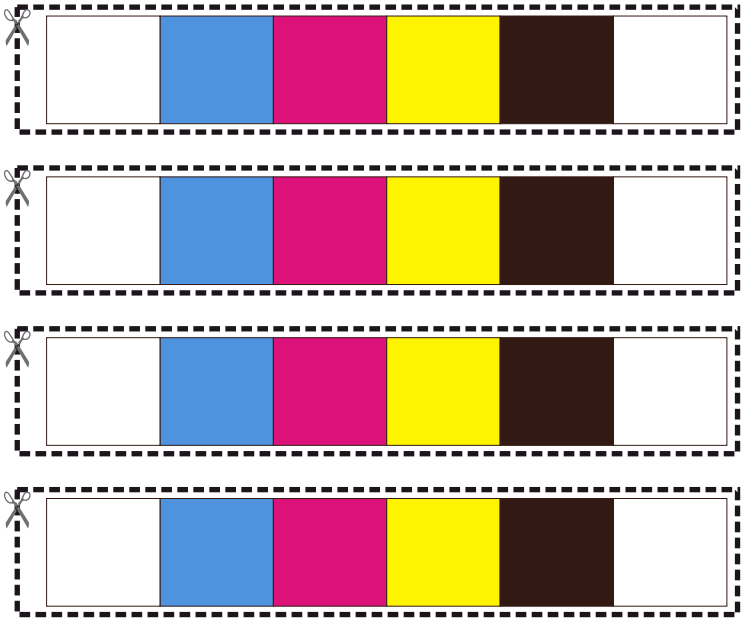
ACCESS PROSTHETIC

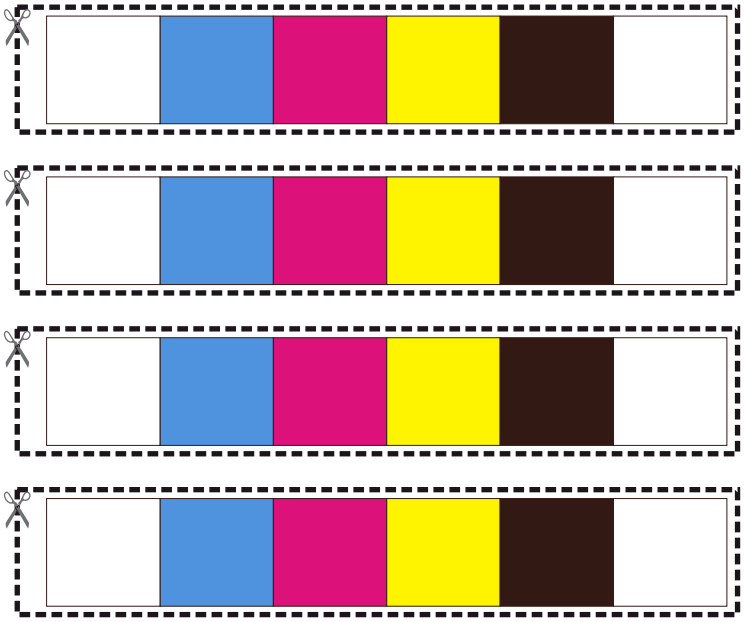
Suitable for cosmetic fitting and visual acuity enhancement

Print and cut out a coloring strip



(figure 1)

Print and cut out a coloring strip



(figure 1)

OMEGA NEAR MULTIFOCAL

Presbyopia correction
for any pupil diameter

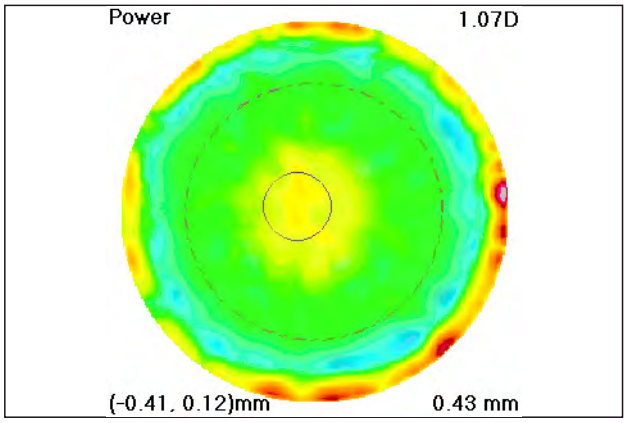
OMEGA NEAR MULTIFOCAL
A soft, multifocal lens, center near zone.
The OMEGA NEAR lens is uniquely designed to include aspheric fitting and optics, as well as enhanced peripheral near zone, correcting presbyopia up to 2.50 diopters.

Available Parameters:

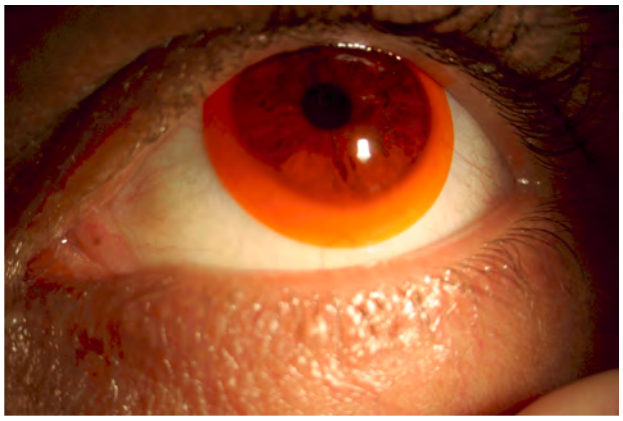
Indications: Presbyopia

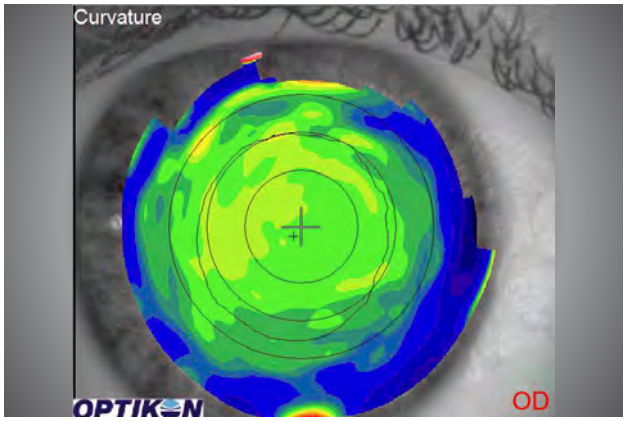
Base curves:	8.60, aspheric (additional diameters are available)
Diopters:	+20.00 to -35.00 in 0.25 D
Addition:	1.00 to 2.50 D in 0.25 D
Near Zone:	3.00 up to 6.00 mm in 0.50
Diameters:	14.20 (larger diameters are also available)
Materials:	**GM Advance 49%**
	HEMA 42% (secondary material – upon request)
	Definitive DK 60 **(OMEGA NEAR 6)**

The fitting and designing of the OMEGA NEAR lenses is true to EYEART's overall mentality, which leads to fully customized lenses for an optimum outcome. The aspheric fitting guarantees the balanced transition of the optic axis from the far to the near zone. The central far zone is customized according to the size of the photopic and mesopic pupil.

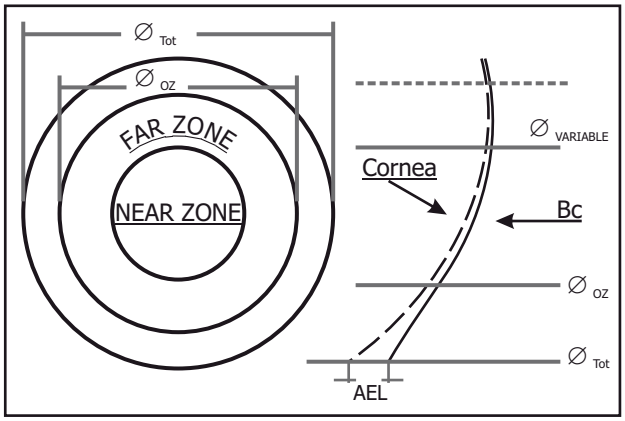


OMEGA NEAR power allocation


OMEGA NEAR correct fitting example



Spherical cornea topography example



Multiaspheric **OMEGA NEAR** lens example

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OMEGA NEAR MULTIFOCAL

Presbyopia correction for any pupil diameter

OMEGA NEAR BASIC FITTING INSTRUCTIONS

CENTRAL CURVATURE: Fitting is done with a BC 8.60 mm and a 14.20 diameter (for keratometric from 7.50 up to 8.10mm). More detailed parameters are available.

DETAILED FITTING INSTRUCTIONS

DIAMETER: Select the diameter by adding 2mm to the Horizontal Visible Iris Device (HVID)

MATERIAL: Concerning the material, EYEART recommends the use of GM Advance and in low tear volume cases HEMA 42%.

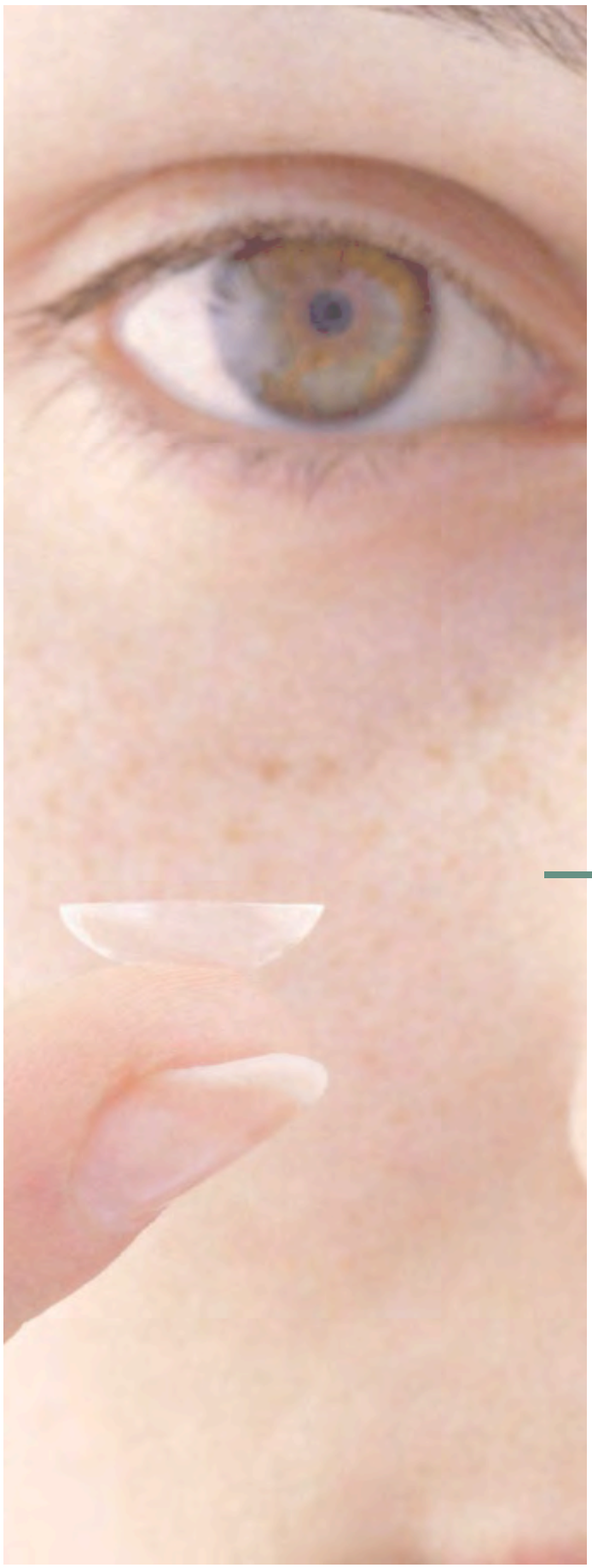
FITTING CHECK: Step 1: Perform a spherical over-refraction and we note down the visual acuity.
Step 2: Find the ADD over the over-refraction
Step 4: Measure the diameter of the mesopic pupil with a ruler.
Order the lens, giving the following information:
1. Diagnostic lens used
2. Spherical over-refraction and ADD over the lens
3. Diameter of the mesopic pupil
4. Manufacturing material

IN THE SLIT-LAMP: The lens must move vertically while blinking from 0.20 to 0.80 mm. It has to be sufficiently centered. When the user looks up and blinks, the edge of the lens should not reach the corneal limbus.

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The curvature of the lens is checked with macroscopic observation. When it is steep, we usually increase by 0.20mm. We decrease accordingly by 0.20 mm when it is flat. The diameter of the lens is checked in the slit-lamp (without the extra 2.00 mm of the cornea). Providing that we have selected the correct curvature, when, while blinking, the edge of the lens touches the corneal limbus, we increase the diameter by 0.50 mm.

EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE



SCLERAL CONTACT LENSES

EPSILON SCLERAL

1. EPSILON SCLERAL

Scleral contact lenses are manufactured according to the topography and the diagnostic lenses ordered for each case by EYEART. For fitters who use scleral lenses frequently, there are trial sets which they can be supplied with, depending on each case.

EPSILON SCLERAL

EPSILON SCLERAL

The SCLERAL lens design is fitted on any case of ectatic cornea or any case presenting asymmetric astigmatism. Is the ideal solution for anomalous astigmatism when the rest of the lens designs offered by EYEART do not satisfy the patients' expectation or the lids position and tension alter the desired fit.

Points of excellence of EPSILON scleral:

-Ensures functionality of limbal stem cells

-Ensures conjuctival blood vessels flow

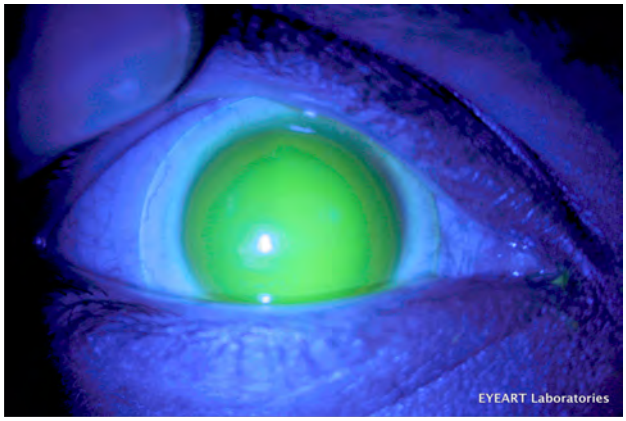
-Exceptional multi aspheric design

Available parameters:

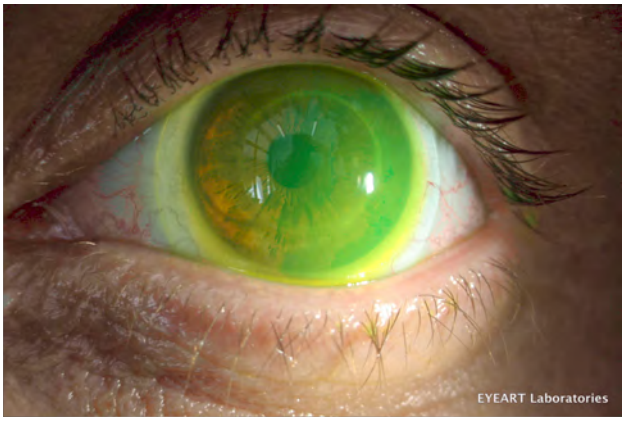
Indications: Keratoconus
Asymmetric astigmatism
Keratoplasty

Saggital Height: 3900 to 5200 microns
Diopters: +25.00 to -35.00 in 0.25 D
Diameters: 17.00 mm (additional diameters are available)
Geometry: Pentacurve aspheric
Material: **BOSTON XO Dk 100**

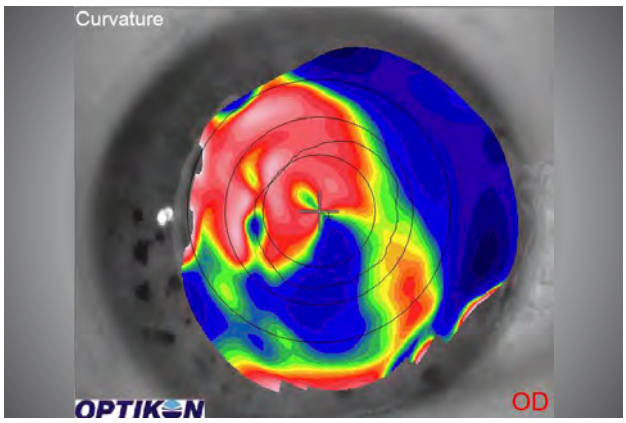
Scleral lens fitting is known to handle any stabilization issues present with corneal lenses. In addition, due to the stability of the materials used, as well as their stable positioning during use, scleral lenses offer the maximum optical performance.



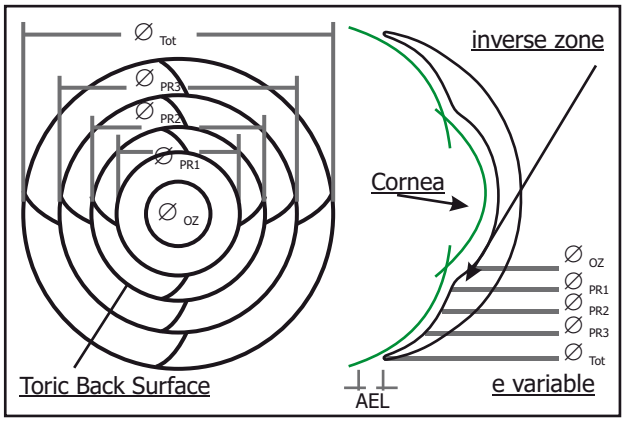
EPSILON steep fitting at limbal region example



Example of **EPSILON** correct fitting



Ectatic cornea topography example



Multi-aspheric **EPSILON** contact lens designing

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EPSILON SCLERAL

EPSILON SCLERAL BASIC FITTING INSTRUCTIONS

The fitting of the Scleral 170 is performed with the diagnostic set.

SET CONTENTS:

BASIC: 8 lenses named A-H, representing the SAG from 4000 to 5200 microns respectively. The second component (e.g. B-M) is M (Medium) which indicates the fitting of the scleral zones.

EXTENDED: 16 lenses with the same elevation for each gradation letter (e.g. B-M) SAG, but with two alternatives for scleral fitting, M (Medium) and F (Flat). According to the example above, there is also the B-F lens.

FITTING PROTOCOL

STEP 1: We fit the D lens and check for fluorescein under the lens.
1a. If there is a tint under the whole surface of the cornea and the corneal limbus, we perform a quality check of the thickness of the elevation with the slit-lamp in a ection
1aI. The elevation thickness equals the lens thickness, which results in satisfactory fitting.
1aII. The elevation thickness is smaller than the lens thickness; we select the lens with the next larger curvature (in this case E).
1aIII. The elevation thickness is larger than the lens thickness; we select the lens with the next smaller curvature (in this case C).

2bI. If the lens touches the cornea, up to 1sq mm, the fitting is "flat". We select the lens after the one with the next larger curvature (in this case from D to F).
2bII. If the lens touches the cornea, more than 1sq mm, we select the lens two lenses after the one with the next larger curvature (in this case from D to G).

STEP 2: We check the fitting of the scleral zones and the edge.
2a. If there is "whitening" in the scleral region and pressure on the blood vessels at the edge of the lens, we fit the lens with same curvature but with a flatter scleral fitting (e.g. from D - M to D -F)
2b. If there is increased fluorescein in the periphery, near the edge, we fit the lens with same curvature but with a steeper scleral fitting (e.g. from D -F to D -M)

STEP 3: We repeat the above checks after 1-2 hours.

STEP 4: We perform a spherical over-refraction

STEP 5: We order the lens as follows: C-M SPH -7.50 (having calculated the vertex distance of the over-refraction and the power of the diagnostic lens)

EPSILON SCLERAL

FITTING DETAILS

Key points to be observed:

- Presence of tear film under the whole surface of the lens in the corneal region
- Increased tear volume in the corneal limbus region
- Absence of intense imprint in the scleral conjunctiva during the removal of the lens
- Absence of pressure (absence of fluorescein) in the corneal region (meaning a "flat" central region)
- Absence of air bubble in the corneal region (a bubble means a steep central zone)
- Absence of intense "whitening" in the lens periphery over the sclera (intense "whitening" means a steep periphery)
- Sufficient tear passing in the cases where a corneoscleral (instead of a scleral) fitting is selected
- The insertion is performed after the instillation of preservative-free saline at the curved part of the lens
- Well-trained user in the use of scleral lenses

EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

DUALASCON
KERATOCONUS

DUALASCON CUSTOM
KERATOCONUS

TORIC
ASPHERIC GP

POST PK
POSTGRAPHED

OMEGA FAR
MULTIFOCAL

OMEGA NEAR
MULTIFOCAL

GAS PERMEABLE CONTACT LENSES

1. **BETA AS**
   Aspheric
2. **BETA AS - TOR**
   Aspheric with toric edge
3. **DUALASCON**
   Aspheric Keratoconus
4. **DUALASCON CUSTOM**
   Aspheric for Keratoconus and transplanted cornea, of fully parameterized fitting
5. **TORIC ASPHERIC GP**
   Toric aspheric toric edge
6. **POST PK**
   Aspheric for transplanted cornea and PK
7. **OMEGA FAR**
   Multifocal (center far)
8. **OMEGA NEAR**
   Multifocal (center near)

EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

MANUFACTURING MATERIALS FOR GAS PERMEABLE CONTACT LENSES (GP)

USED BY EYEART LABORATORIES

	Optimum Extreme	Optimum Extra	Optimum HR	Boston XO	Paragon FSA52	Add Value 20
Manufacturer	Contamac	Contamac	Contamac	Baush & Lomb	Paragon	Vista-Optics
Dk Fat ISO 9913 - 1	125	100	51	100	52	20
Material Type	Fluoropolymer	Fluoropolymer	Fluoropolymer	Fluoropolymer	Fluoropolymer	Fluoropolymer
Material Classification	Focon V3	Focon III 3	Focon III 4	Focon II 2	Hexafocon A	-
Refraction Index	1.432	1.431	1.51	1.41	1.37	1.43
Shore D Hardness	77	75	78	81	80	N/A
Normal Tear Film	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Low volume tear secretion	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Excessive Tear secretion	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Intense lipids	✓	✓✓	✓✓	✓✓	✓✓✓	✓✓
Intense Proteins	✓✓	✓✓	✓✓	✓✓	✓✓✓	✓✓
Initial comfort	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓	✓
Wettability of surfaces	✓	✓✓	✓✓	✓✓	✓✓✓	✓✓✓
Eye dryness	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓

BETA ASPHERIC

Stable fitting which satisfies even the most demanding fitters

BETA ASPHERIC

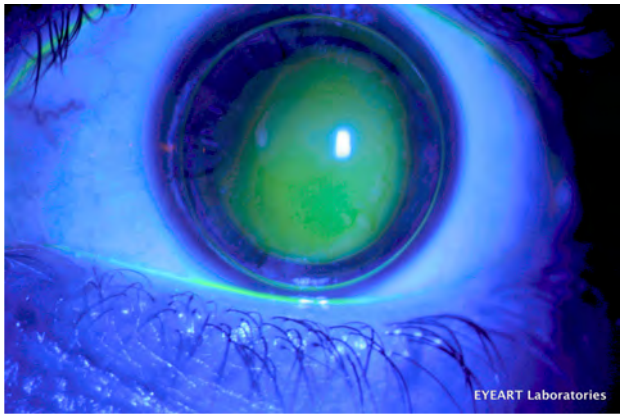
The ideal lens when the corneal astigmatism is up to 1.50 D. Its elliptical design is in total accordance with the shape of the cornea which makes the user feel comfortable all day long.

Available parameters:

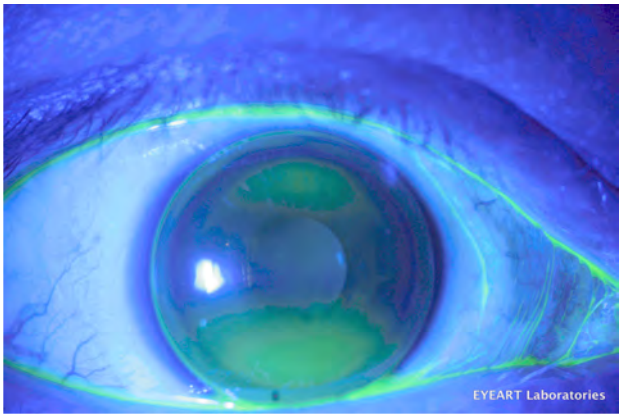
Indications: Myopia
Hyperopia
Presbyopia up to 1.25 ADD
Astigmatism up to 1.50 D
Keratoconus at first and/or second stage

Base Curves: 7.00 to 8.60 in 0.10mm, aspheric
Diopters: +35.00 to -35.00 in 0.25 D
Diameters: 9.80 (additional parameters are available)
Materials: Optimum Extreme, Optimum Extra, Boston XO, Optimum Hi refractive index, Paragon FSA 52

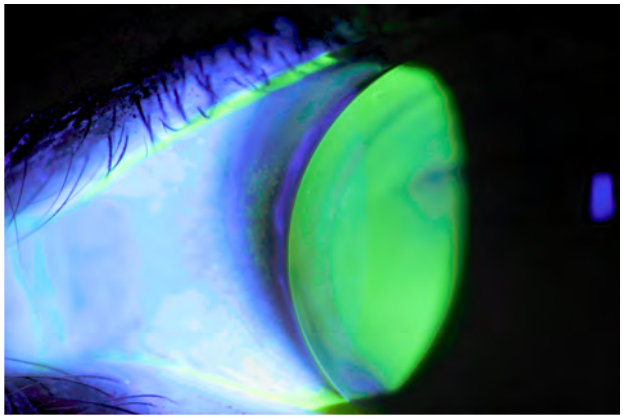
Beta lens has been designed according to the statistics of the shape of the cornea and can thus satisfy even the most demanding fitters. Its relatively large diameter can ensure stable fitting with minimal lid sensation. The optical zone is extended that can cover the visual field in both photopic and scotopic conditions (bright and dim lighting conditions), offering stable vision.



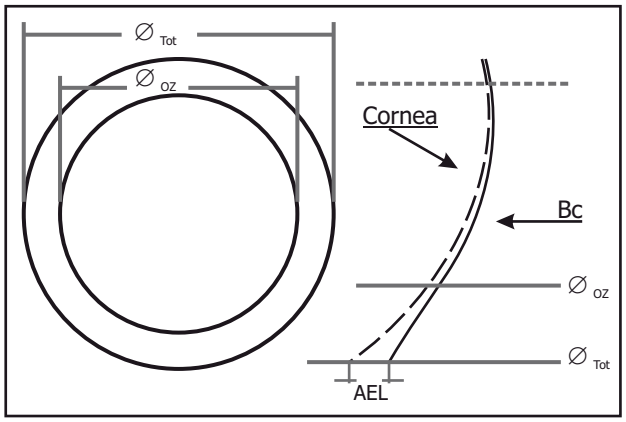
Beta Aspheric steep fitting example



Beta Aspheric correct fitting example



Beta Aspheric flat fitting example



Beta Aspheric lens designing

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BETA ASPHERIC

Stable fitting which satisfies even the most demanding fitters

BETA ASPHERIC: BASIC FITTING INSTRUCTIONS

STEP 1: Fit the lens closest to the flattest keratometric index
Example: keratometric reading 8.00 and 7.70. Select the 8.00/-5.00/9.80 lens.

STEP 2: Perform a spherical over-refraction and we note down the visual acuity.

STEP 3: Order the lens giving the following information:
1. Diagnostic lens used
2. Spherical over refraction
3. Manufacturing material

FITTING CHECK

Fit the diagnostic lens, which is checked after 15 minutes with fluorescein instillation.

IN THE SLIT-LAMP: The lens must move vertically while blinking 0.50 to 1.50 mm. It must be centered satisfactorily. When the user blinks, the lens must move upwards and then repositioned back to its initial place. The fluorescein must be present underneath the whole lens surface during blinking so that pressure is not applied to the cornea. The ideal thickness of the tear film is 0.20 mm, and it is visible as a light green tint. The lens periphery is more elevated (0.50-1.00 mm from the edge), so there is a more intense coloring of the tears.

THE PUSH-UP METHOD: The lids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast movement followed by abrupt stop. If the fitting is flat, the lens is repositioned quickly and in a rotary manner. It often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one: The lens's curvature is controlled with the slit-lamp and the use of fluorescein. When it is steep, we usually increase by 0.10 mm. We decrease accordingly by 0.10 mm when it is flat. It is recommended that the less experienced fitters try a diagnostic, flatter lens (more curvature) and a steeper one so as to observe the differences and select the best solution.

The lens's diameter is controlled with the slit-lamp. The ideal diameter is 2mm smaller than the visible corneal diameter.

Diagnostic Fitting Set
9 lenses with BC 7,20 → 8,40

EYEART LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

BETA TORIC

Stable fitting which satisfies even the most demanding fitters

BETA TORIC

The elliptical geometry of BETA AS, combined with toric edge, is recommended when BETA's visual performance is satisfactory, but the fitter wants a better stabilization of the lens due to corneal astigmatism being more than 1.50 D.

Available parameters:

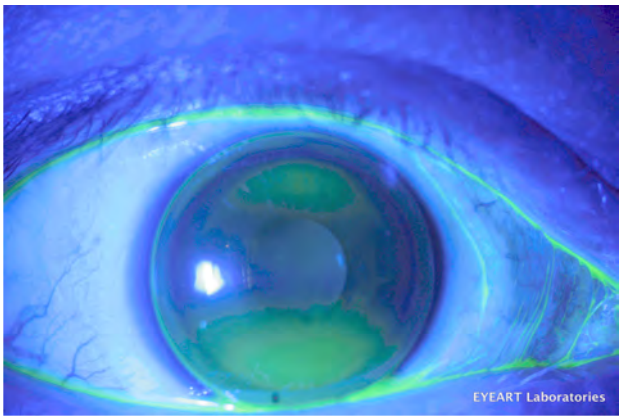
Indications: Myopia
Hyperopia
Presbyopia up to 1.50 D
Astigmatism up to 2.50 D
Keratoconus at first and/or second stage

Astigmatic periphery: 0.20mm (additional parameters are available 0.30 up to 1.00 in 0.10mm)

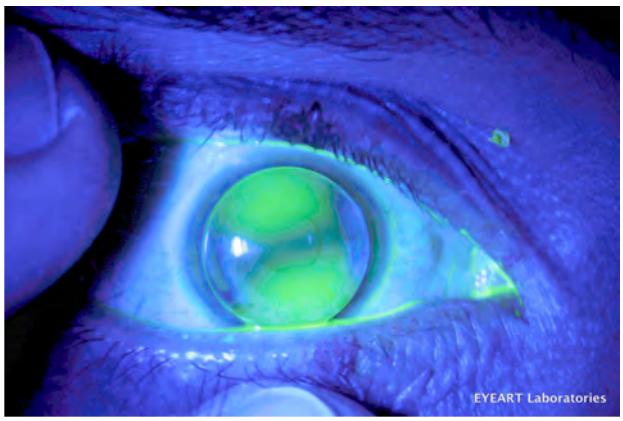
Base Curves: 7.00 to 8.60 in 0.10mm, aspheric
Diopters: +35.00 to -35.00 in 0.25 D
Diameters: 9.80 (additional parameters are also available)
Materials: Optimum Extreme, Optimum Extra, Boston XO, Paragon FSA 52, Hi refractive index (HS)

The BETA TORIC lens has been designed to deal with the cases where BETA AS or any other aspheric lens offers a good vision where medium - advanced astigmatism is involved, but not with the necessary stability, due to the instability of the periphery on an astigmatic cornea.
It can also handle cases where the edges of the lens are asymmetrically lift from the cornea and reduce its comfort which relates to the palpebral.

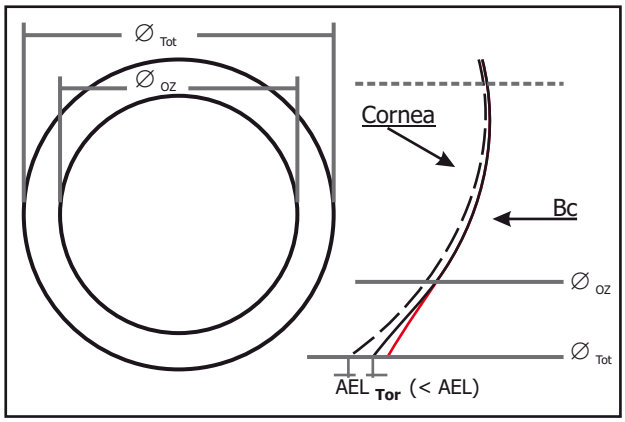
Astigmatic cornea with **Beta lens** example



Beta Toric Edge correct fitting example



Astigmatic cornea with **Beta lens** example



Beta Toric aspheric lens designing

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BETA TORIC

Stable fitting which satisfies
even the most demanding fitters

BETA TORIC BASIC FITTING INSTRUCTION S

STEP 1: Fit the lens closest to the flattest keratometric radius, from the BEAT AS set
Example: keratometric reading 8.00 and 7.70. We select the 8.00/-5.00/9.80 lens.

STEP 2: Perform a spherical over-refraction and we note down the visual acuity.

STEP 3: Order the lens giving the following information:
1. Diagnostic lens used
2. Spherical over refraction
3. Keratometric readings to calculate toric periphery or short video or photos from the diagnostic fitting
4. Manufacturing material

FITTING CHECK

Fit the diagnostic lens, which is checked after 15 minutes with fluorescein instillation.

IN THE SLIT LAMP: The lens must move vertically while blinking 0.50 to 1.50 mm. It must focus satisfactorily. When the user blinks, the lens must move upwards and then repositioned back to its initial place. The fluorescein must be present underneath the whole lens surface during blinking so that pressure is not applied to the cornea. The ideal thickness of the tear film is 0.20 mm, and it is visible as a light green tint. The lens periphery is more elevated (0.50-1.00 mm from the edge), so there is a more intense coloring of the tears.

THE PUSH-UP METHOD: The lids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and in a rotary manner. It often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one:

Diagnostic Fitting Set

9 lenses

7,20 → 8,40

The **BETA** diagnostic set is used for the **BETA TORIC** fitting

The lens's curvature is controlled with the slit-lamp and the use of fluorescein. When it is steep, we usually increase by 0.10 mm. We decrease accordingly by 0.10 mm when it is flat. It is recommended that the less experienced fitters try a diagnostic, flatter lens and a steeper one so as to observe the discrepancies and select the best solution.

The lens's diameter is controlled with the slit-lamp. The ideal diameter is 2mm smaller from the visible corneal diameter.

DETAILED FITTING INSTRUCTIONS

If the over-refraction does not have the desired effect concerning visual acuity:
We perform astigmatic over refraction. If there is considerable improvement we fit a TORIC ASPHERIC or a BITORIC lens with the respective diagnostic set.

DUALASCON KERATOCONUS

The most successful GP lens for keratoconus fitting

DUALASCON KERATOCONUS

Led by the experience of numerous cases currently using the Dualascon Custom lens, Eyeart has designed the third-generation Dualascon lens for a busy fitter who needs an effective and quick solution.

Available parameters:

Indications: Keratoconus
Transplanted cornea

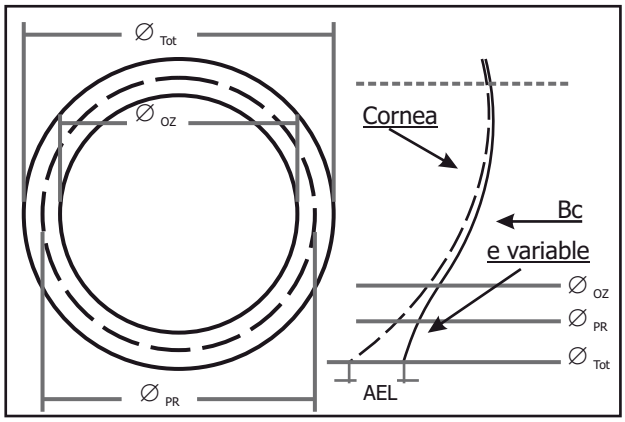
Base Curves: 5.10 to 8.60 in 0.10mm, aspheric
Diopters: +40.00 to -35.00 in 0.25 D
Diameters: 9.50 mm
Materials: Optimum Extreme, Optimum Extra, Boston XO, Paragon FSA 52

The DUALASCON lenses are tricurve aspheric fitting and optically designed with gradual increase of eccentricity. The parameters of the periphery curvatures aim at the fitting of the majority of keratoconic corneas without additional modifications. Their optical zone is wide enough to fully cover the pupil, even in fittings with increased mobility.

Dualascon flat fitting example

Dualascon correct fitting example

Dualascon steep fitting example



Multi-aspheric **Dualascon** lens designing

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DUALASCON
KERATOCONUS

The most successful GP lens
for keratoconus fitting

DUALASCON: BASIC FITTING INSTRUCTIONS

STEP 1: Fit the lens closest to the flattest keratometric index or the flattest indication +0.40mm
Example: keratometric indications 6.70 and 5.90. Select the lens with base curve of 7.10 mm.

STEP 2: Perform spherical over-refraction and note down the visual acuity.

STEP 3: Order the lens giving the following information:
1. Diagnostic lens used
2. Spherical over refraction
3. Manufacturing material

FITTING CHECK

Fit the diagnostic lens, which is checked after 15 minutes with fluorescein instillation

IN THE SLIT LAMP: The lens must move vertically while blinking 0.50 to 1.50 mm. It must focus satisfactorily. When the user blinks, the lens must move upwards (touching the lid and then repositioned back to its initial place). The fluorescein must be present underneath the whole lens surface during blinking so that pressure is not applied to the cornea. The ideal thickness of the tear film is 0.20 mm, and it is visible as a light green tint. The lens periphery is more elevated (0.50-1.00 mm from the edge), so there is a more intense coloring of the tears.

THE PUSH-UP METHOD: The lids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and in a rotary manner. It often goes downward, beyond the correctly centered position in front of the cornea.

FITTING OPTIONS

The lens's curvature is controlled with the slit-lamp and the use of fluorescein. When it is steep, we usually increase it by 0.10 mm. We decrease it accordingly by 0.10 mm when it is flat. It is recommended that the less experienced fitters try a diagnostic, flatter lens and a steeper one so as to observe the discrepancies and make the best choice.

Diagnostic Fitting Set
9 lenses 6,40 → 7,70

DETAILED FITTING INSTRUCTIONS

In cases where the curvatures and/or the diameters of the zones and/or the lens need customizing, fit the DUALASCON CUSTOM which offers the chance for alteration of any of the above parameters.

DUALASCON CUSTOM KERATOCONUS

The most successful GP lens for keratoconus fitting

DUALASCON KERATOCONUS CUSTOM

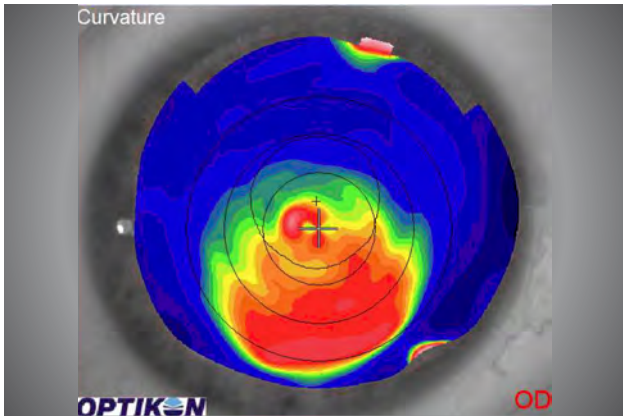
The geometry which will meet the needs of the most advanced keratoconic and transplanted corneas. The aspheric design meets the complexity of the cornea.

Available parameters:

Indications: Keratoconus
Transplanted cornea

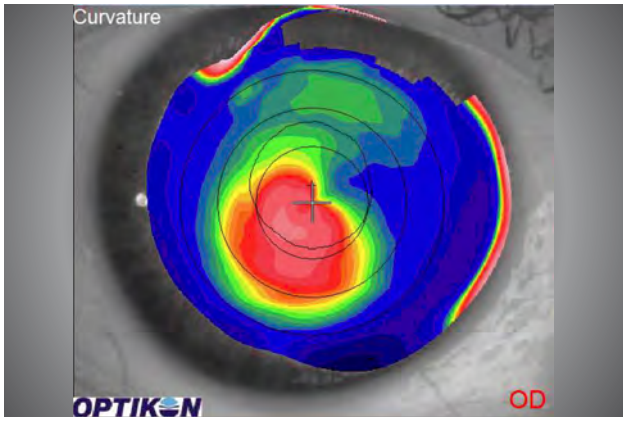
Base Curves: 5.10 to 8.60 in 0.10 mm, aspheric
Diopters: +40.00 to -35.00 in 0.25 D
Diameters: 9.50 mm (additional parameters are also available)
Materials: Optimum Extreme, Optimum Extra, Boston XO, Paragon FSA 52

The DUASASCON CUSTOM lenses are tricurve aspheric lenses which can be parameterized by the fitter in every zone individually. This renders it unique in its kind, covering even the most complex cases.
The DUASASCON CUSTOM fitted in extended area keratoconic corneas, 4th stage conus and post grafted corneas

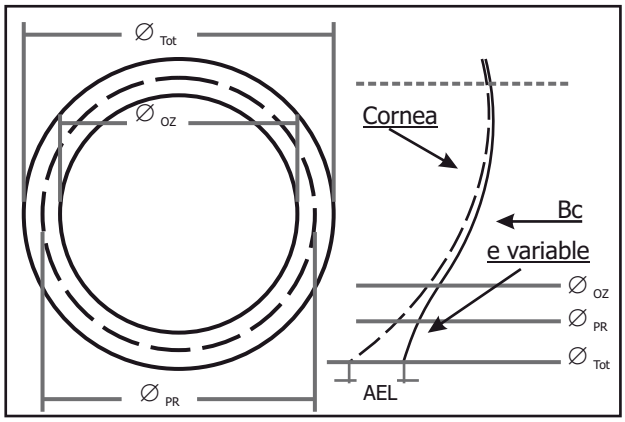


Advanced Keratoconus topography example

Dualascon correct fitting example



Decentered cone topography example



Multi-aspheric **Dualascon Custom** lens designing

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DUALASCON CUSTOM KERATOCONUS

The most successful GP lens for keratoconus fitting

DUALASCON CUSTOM BASIC FITTING INSTRUCTIONS

STEP 1: Fit the lens closest to the flattest keratometric index +0.40mm
Example: keratometric reading 6.70 and 5.90. Select the lens with a 7.10 curvature.

STEP 2: Perform a spherical over-refraction and we note down the visual acuity.

STEP 3: Order the lens giving the following information:
1. Diagnostic lens used (e.g. 7.00:7.50/8.50:8.90/9.90:9.50 P-3.00 D)
2. Spherical over-refraction
3. Manufacturing material

FITTING CHECK

We fit the diagnostic lens, which is checked after 15 minutes with fluorescein instillation.

IN THE SLIT LAMP: The lens must move vertically while blinking 0.50 to 1.50 mm. It must focus satisfactorily. When the user blinks, the lens must move upwards (touching the lid and then repositioned back to its initial place). The fluorescein must be present underneath the whole lens surface during blinking so that pressure is not applied to the cornea. The ideal thickness of the tear film is 0.20 mm, and it is visible as a light green tint. The lens periphery is more elevated (0.50-1.00 mm from the edge), so there is a more intense coloring of the tears.

THE PUSH-UP METHOD: The lids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and in a rotary manner. It often goes downward, beyond the correctly centered position in front of the cornea.

Diagnostic Fitting Set

9 lenses

6,40 → 7,70

The **DUALASCON** diagnostic set is used for the fitting of the **DUALASCON CUSTOM** lenses

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one:
The lens's curvature is controlled with the slit-lamp and the use of fluorescein. When it is steep, we usually increase by 0.10 mm. We decrease accordingly by 0.10 mm when it is flat. It is recommended that the less experienced fitters try a diagnostic, flatter lens and a steeper one so as to observe the discrepancies and select the best solution.
The lens's diameter is controlled with the slit-lamp. The ideal diameter is 2mm smaller than the visible cornel diameter.

DETAILED FITTING INSTRUCTIONS

PERIPHERAL CURVATURES: The two peripheral curvatures can also be parameterized. Contact EYEART LABORATORIES'S specialized staff for any clarification concerning the parameterization.
Example: Test lens 7.00:7.50/8.50:8.90/9.90:9.50. We want to flatten the entire periphery of the lens. Lens ordered: 7.00:7.50/8.90:8.90/10.30:9.50

TORIC ASPHERIC GP

Toric visual correction of astigmatism up to 12.00 D

TORIC ASPHERIC GP

A first-choice rigid gas permeable lens when the corneal astigmatism is over 2.00 D. The combination of the back toric and aspheric surface offers the user stable vision and comfort, as an aspheric lens does a spherical cornea, even if the astigmatism is over 4.00 diopters.

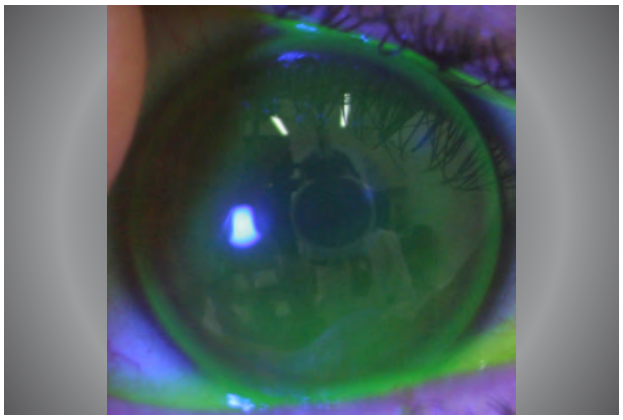
Available parameters:

Indications: Cases of astigmatism from 2.00D up to 12.00D and post-keratoplasty cases

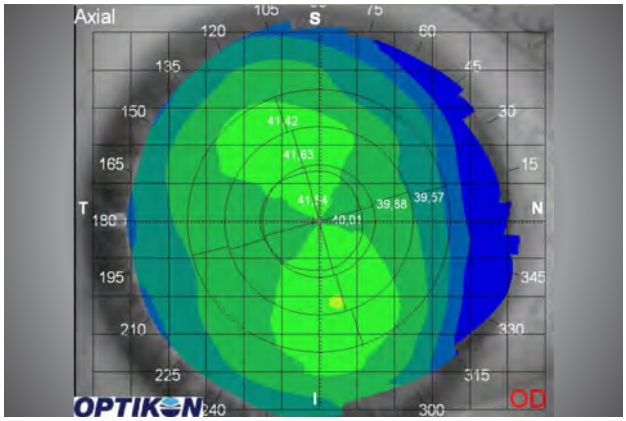
Base Curves: 7.00 to 8.60 in 0.10 mm, aspheric
Diopters: +40.00 to -35.00 in 0.25 D
Diameters: 9.80 mm (additional parameters are also available)
Astigmatism: up to 12.00D, depending on the fitting method
Geometry: Bicurve aspheric toric
Materials: Optimum Extreme, Optimum Extra, Boston XO, Paragon FSA 52

The geometry of the Toric Aspheric lens is bicurve atoric depending on the fitting requirements. It is chosen when the Astigmatism is higher than 2.50 D (for the rest of the cases we can fit the BETA TORIC).

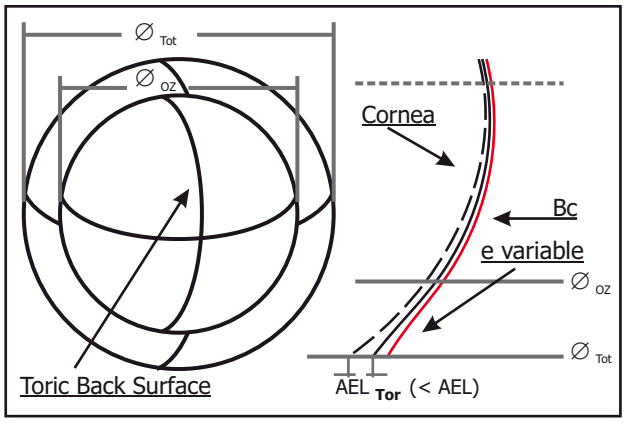
Fitting example of **Beta** lens in a cornea with high astigmatism



Toric Aspheric correct fitting example



Topography with high toricity



Multi-aspheric **Toric Aspheric** lens designing

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TORIC
ASPHERIC GP

Toric visual correction
of astigmatism up to 12.00 D

TORIC ASPHERIC-GP BASIC FITTING INSTRUCTIONS

The TORIC ASPHERIC GP lens has been designed to cover the cases that already have corneal astigmatism higher than 2.50 D. Consequently, due to the numerous different parameters, the fitting is performed in consultation with EYEART'S clinical department.

The information of the case is sent (via email or the telephone)
A. Underlying pathology / reason of fitting
B. Refraction and visual acuity (as well as pinhole refraction)
C. Topography of the cornea or keratometric readings

Diagnostic set for Tele-Fitting
9 lenses
7,20 → 8,40
The **BETA** diagnostic set is used for the fitting of the **TORIC ASPHERIC** lenses

EYEART
LABORATORIES
PRECISION CONTACT LENS AND OPTICS MANUFACTURE

POST PK
POSTGRAPHED

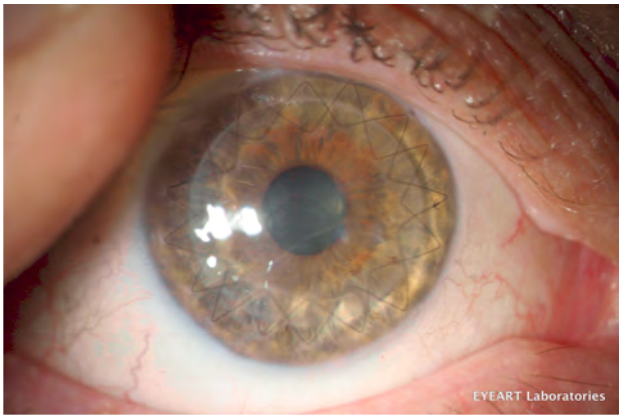
Reverse Geometry for extreme Topographic Asymmetries

POST - PK POSTGRAPHED

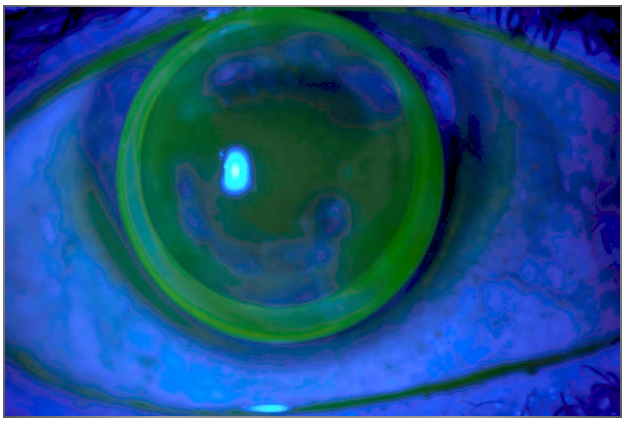
Gas Permeable, reverse geometry, toric edge. When fitting contact lenses it is known that, when the conventional geometries do not provide the necessary stabilization of the cornea, inverse geometry is used (steeper than the base curve). The POST-PK INV design was designed to cover these cases and at the same time correct astigmatism of the front and back surface.

	Available parameters:
Indications: Post- graft cases, corneas with high elevation corneal differences in the different quadrants	Base Curves: 7.00 to 8.60 in 0.10mm Diopters: +40.00 to -35.00 in 0.25 D Diameters: 10.20 (additional parameters are available) Astigmatism: up to 12.00D , depending on the fitting method Geometry: Tetracurve aspheric toric Materials: Optimum Extreme, Optimum Extra, Boston XO, Paragon FSA 52

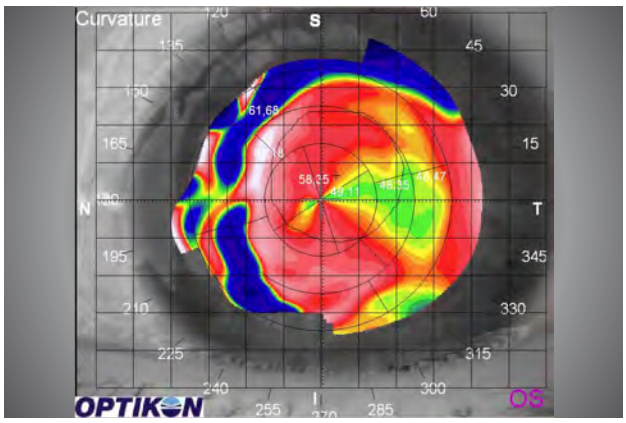
It is the lens best suited for total post-grapht, if there is graft elevation. In the cases where POST-PK is fitted we use large lens diameters starting from 10.20 mm. In some cases the diameter is increased to ensure stable fitting and optimum outcome.



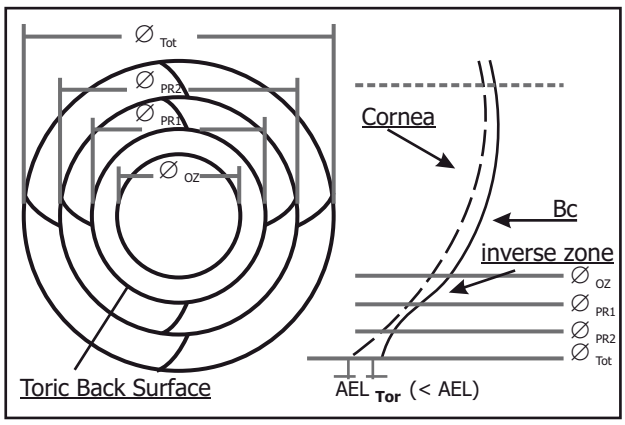
Transplanted cornea example



POST-PK correct fitting example



Post-Graft corneal topography example



Multi-aspheric **Post-PK** lens example

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POST PK
POSTGRAPHED

Reverse Geometry for extreme Topographic Asymmetries

POST-PK BASIC FITTING INSTRUCTIONS

The POST-PK lens has been designed to cover the cases that require a customization of the fitting zones. Consequently, due to the numerous different parameters, the fitting is performed in consultation with EYEART'S clinical –customer service department. Concerning the fitting, the use of trial lenses, ordered by EYEART, is recommended. After the trial fitting, the final lens with the desired material is ordered.

STEP 1: The information of the case is sent (via email or the telephone)
A. Underlying pathology / reason for fitting
B. Refraction and visual acuity (as well as pinhole refraction)
C. Topography of the cornea or keratometric readings

STEP 2: Shipping of the diagnostic lens manufactured for each case by EYEART

STEP 3: Fitting check of the lens and possible parameterization

STEP 4: Refraction with the lens already fitted

STEP 5: Selection of the material

STEP 6 Order of the final lens

OMEGA GP FAR MULTIFOCAL

Multifocal correction with optic zone customization

OMEGA GP FAR MULTIFOCAL

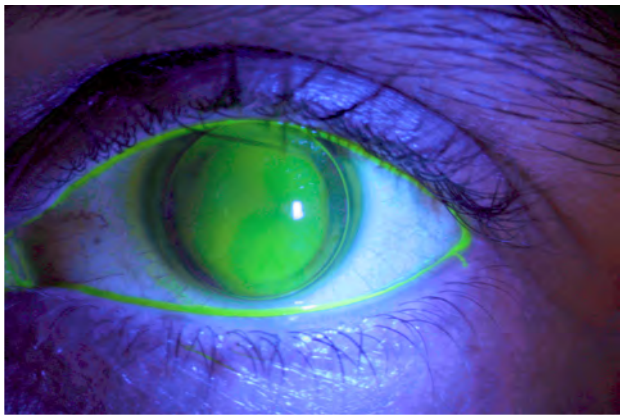
GP multifocal, center far zone. The OMEGA FAR GP is uniquely designed to include aspheric fitting and optics, as well as enhanced peripheral near zone, correcting presbyopia up to 3.50 diopters.

Available parameters:

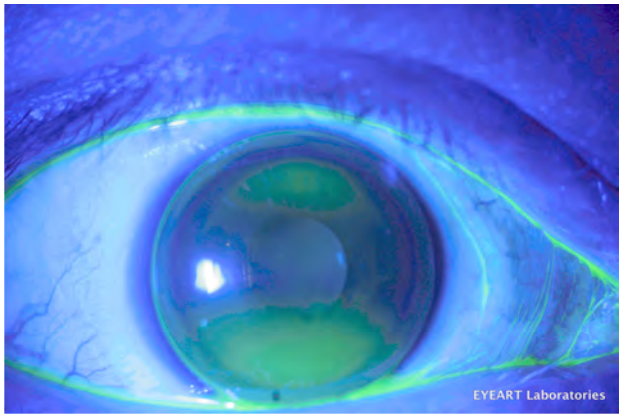
Indications: Presbyopia
Astigmatism

Base Curves: 7.00 to 8.60 in 0.10mm, aspheric
Diopters: +40.00 to -35.00 in 0.25 D
Addition: 1.00 up to 3.50 D in .025 D
Far zone: 3.00 up to 6.00 mm in 0.50
Diameters: 9.80 (larger diameters are also available)
Materials: Optimum Extreme, Optimum Extra, Boston XO, Paragon FSA 52
Optimum hi refractive index HR

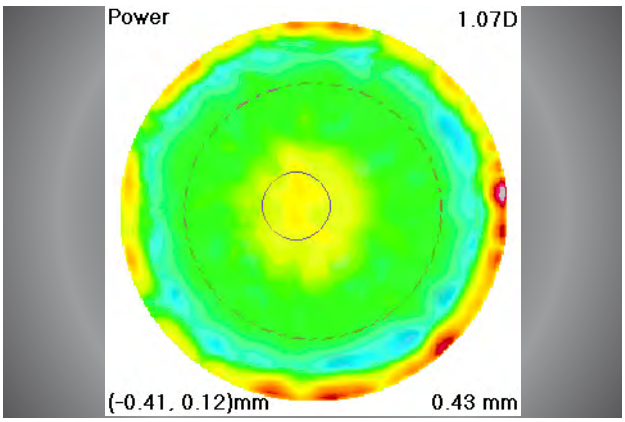
The fitting and designing of the OMEGA FAR GP lenses is true to EYEART's overall mentality, which leads to fully customized lenses for an optimum outcome. The aspheric fitting guarantees the balanced transition of the optic axis from the far to the near zone. The central far zone is customized according to the size of the photopic and mesopic pupil.



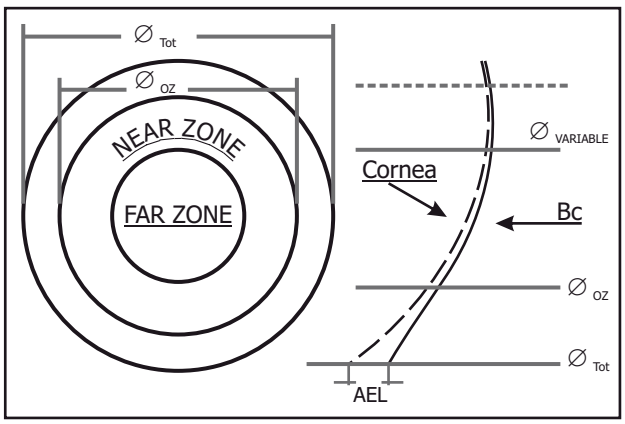
OMEGA GP FAR steep fitting example



OMEGA GP FAR correct fitting example



OMEGA GP FAR power distribution



OMEGA GP FAR designing

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OMEGA GP FAR MULTIFOCAL

Multifocal correction
with optic zone customization

OMEGA GP FAR BASIC FITTING INSTRUCTIONS

STEP 1: Fit the BETA lens closest to the flattest keratometric reading.
Example: keratometric reading 8.00 and 7.70. We select the 8.00/-5.00/9.80 lens.

STEP 2: Perform a spherical over-refraction and we note down the visual acuity.

STEP 3: Find the ADD, refracting with the trial lens on the eye.

STEP 4: Measure the diameter of the mesopic pupil with a ruler. Order the lens giving the following information:
1. Diagnostic lens used
2. Spherical over refraction and ADD over the lens
3. Diameter of the mesopic pupil
4. Manufacturing material

FITTING CHECK

Fit the diagnostic lens, and check it after 15 minutes with fluorescein instillation

IN THE SLIT LAMP: The lens must move vertically while blinking 0.50 to 1.50 mm. It must focus satisfactorily. When the user blinks, the lens must move upwards (touching the lid and then repositioned back to its initial place). The fluorescein must be present underneath the whole lens surface during blinking so that pressure is not applied to the cornea. The ideal thickness of the tear film is 0.20 mm, and it is visible as a light green tint. The lens periphery is more elevated (0.50-1.00 mm from the edge), so there is a more intense coloring of the tears.

THE PUSH-UP METHOD: The lids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and in a rotary manner. It often goes downward, beyond the correctly centered position in front of the cornea.

Diagnostic Fitting Set
9 lenses
7,20 → 8,40
The **BETA** diagnostic line is used for the fitting of the **OMEGA GP FAR** lenses

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one:
The lens's curvature is controlled with the slit-lamp and the use of fluorescein. When it is steep, we usually increase by 0.10 mm. We decrease accordingly by 0.10 mm when it is flat. It is recommended that the less experienced fitters try a diagnostic, flatter lens (more curvature) and a steeper one (less curvature) so as to observe the discrepancies and select the best solution.
The lens's diameter is controlled with the slit-lamp. The ideal diameter for the conventional fittings is 2 mm smaller than the Horizontal Visible Iris Diameter (HVID).

OMEGA GP NEAR MULTIFOCAL

Multifocal correction with optic zone customization

OMEGA GP NEAR MULTIFOCAL

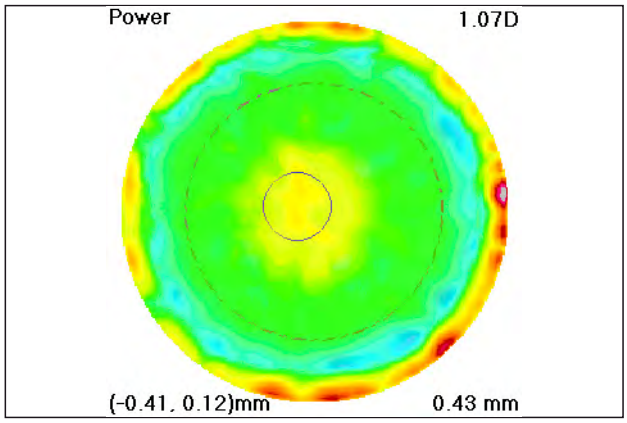
GP multifocal center near zone. The OMEGA GP NEAR lens is uniquely designed to include aspheric fitting and optics, as well as enhanced central near zone, correcting Presbyopia up to 3.50 diopters.

Available parameters:

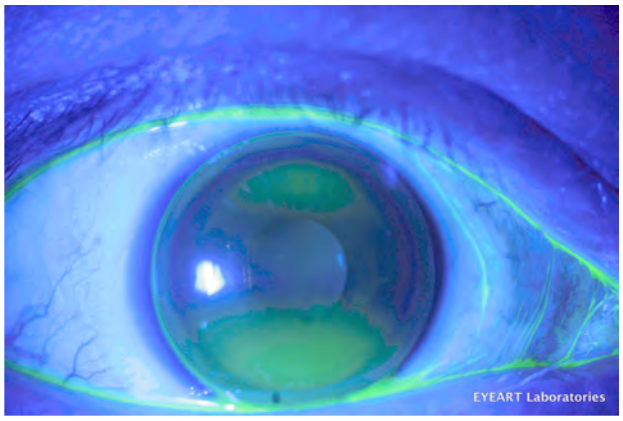
Indications: Presbyopia
Astigmatism

Base Curves: 7.00 to 8.60 in 0.10mm, aspheric
Diopters: +40.00 to -35.00 in 0.25 D
Addition: 1.00 up to 3.50 D in .025 D
Near zone: 3.00 up to 6.00 mm in 0.50
Diameters: 9.80 (larger diameters are also available)
Materials: Optimum Extreme, Optimum Extra, Boston XO, Paragon FSA 52
Optimum hi refractive index

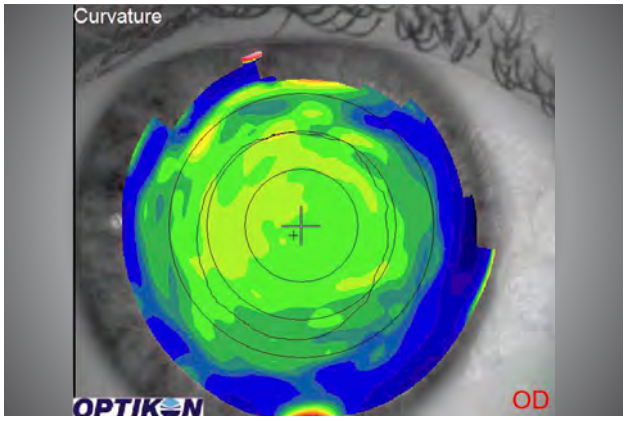
The fitting and designing of the OMEGA FAR GP lenses is true to EYEART's overall mentality, which leads to fully customized lenses for an optimum outcome. The aspheric fitting guarantees the balanced transition of the optic axis from the far to the near zone. The central near zone is individualized according to the size of the photopic and mesopic pupil.



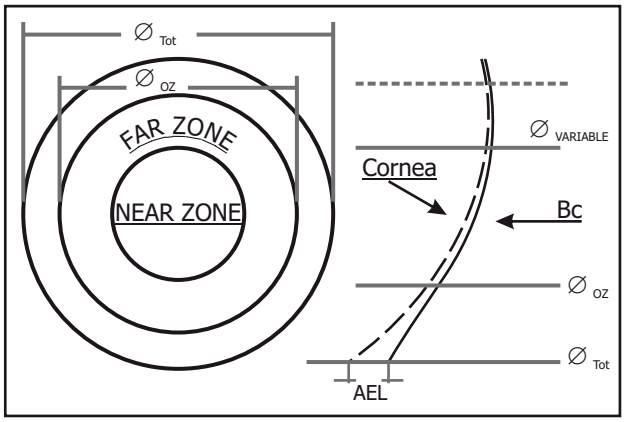
OMEGA GP NEAR power allocation



OMEGA GP NEAR correct fitting example



Spherical cornea topography example



Multifocal **OMEGA GP NEAR** lens designing

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OMEGA GP NEAR MULTIFOCAL

Multifocal correction
with optic zone customization

OMEGA GP NEAR BASIC FITTING INSTRUCTIONS

STEP 1: Fit the BETA lens closest to the flattest keratometric reading.
Example: keratometric reading 8.00 and 7.70. We select the 8.00/-5.00/9.80 lens.

STEP 2: Perform a spherical over-refraction and we note down the visual acuity.

STEP 3: Find the ADD, refracting with the trial lens on the eye.

STEP 4: Measure the diameter of the mesopic pupil with a ruler. Order the lens giving the following information:
1. Diagnostic lens used
2. Spherical over refraction and ADD over the lens
3. Diameter of the mesopic pupil
4. Manufacturing material

FITTING CHECK

Fit the diagnostic lens, and check it after 15 minutes with fluorescein instillation

IN THE SLIT LAMP: The lens must move vertically while blinking 0.50 to 1.50 mm. It must focus satisfactorily. When the user blinks, the lens must move upwards (touching the lid and then repositioned back to its initial place). The fluorescein must be present underneath the whole lens surface during blinking so that pressure is not applied to the cornea. The ideal thickness of the tear film is 0.20 mm, and it is visible as a light green tint. The lens periphery is more elevated (0.50-1.00 mm from the edge), so there is a more intense coloring of the tears.

THE PUSH-UP METHOD: The lids are kept open so as not to touch the lens. With the lower lid we push the lens upwards. We observe the lens's repositioning at the centered position. If the fitting is correct, the lens is repositioned with a regular downward movement. If the fitting is steep, the lens is repositioned either very slowly or with a fast, abrupt movement. If the fitting is flat, the lens is repositioned quickly and in a rotary manner. It often goes downward, beyond the correctly centered position in front of the cornea.

Diagnostic Fitting Set
9 lenses
7,20 → 8,40
The **BETA** diagnostic line is used for the fitting of the **OMEGA GP NEAR** lenses

FITTING OPTIONS

Since in EYEART all the parameters of the lenses are available, a customized choice is an easy one:
The lens's curvature is controlled with the slit-lamp and the use of fluorescein. When it is steep, we usually increase by 0.10 mm. Decrease accordingly by 0.10 mm when it is flat. It is recommended that the less experienced fitters try a diagnostic, flatter lens (more curvature) and a steeper one (less curvature) so as to observe the discrepancies and select the best solution.
The lens's diameter is controlled with the slit-lamp. The ideal diameter for the conventional fittings is 2mm smaller than Horizontal Visible Iris Diameter (HVID).

EYEART
LABORATORIES

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