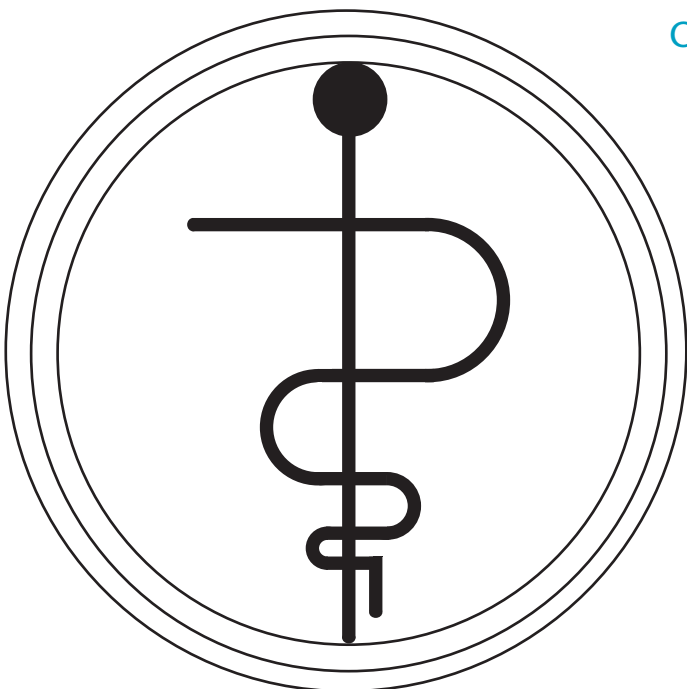


Soft contact lenses

Toris-K	keratoconus
Torelis-K	multifocal-keratoconus
Toris-OP	post-surgical
Torelis-OP	multifocal-post-surgical
Orbis-T	bandage
Orbis-XL	bandage x-large
Orbis-B	baby

RGP contact lenses

Orbiflex-K	keratoconus
Orbiflex-OP	post-surgical
Orbiflex-SxS	custom made



General Information

That's SwissLens

1992 –1997: Development of the manufacturing technology and lens geometry.

1995: First sales in western Switzerland.

1997: Incorporation of SwissLens in Prilly, near Lausanne.

1998: ISO 9000 certification and CE mark.

2004: German market.

2006: Austrian market.

2007: Scandinavian and French markets

2011: Start UK market

SwissLens is active in more than 15 countries (Switzerland, Germany, Austria, Belgium, Denmark, Finland, France, Iceland, Norway, Turkey, Spain, Sweden,...) and currently delivers its products to over 1,500 contact lens specialists.



SwissLens is committed to building long-term relationships with its lens specialists by introducing innovative and personalized products and services, thus contributing to lens wearer loyalty.

SwissLens sells its products to lens specialists only. All lenses are made to measure and order. We do not hold stock.

SwissLens offers a comprehensive range of lenses with unlimited parameters, backed by technical services to facilitate lens fitting, patient follow-up and general administration.

SwissLens products and services constitute an alternative to both frequent-replacement lenses and lenses sold directly to consumers through the internet.

No limits!

Lenses can be manufactured with all geometries and in all available materials.

Parameters are available in standard or fully variable increments.

Lenses can be ordered in three renewal frequencies: 3-monthly, 6-monthly and 12-monthly.

Some news about renewals!

Every lens specialist has their own requirements and their own particular environment, and knows their specific market for made-to-measure lenses. SwissLens offers various renewal options to satisfy these expectations.

A traditional 12-monthly renewal allows annual costs to be reduced.

More frequent checks (e.g. 3 months):

- Helps strengthen the patient relationship, builds loyalty and contributes to a better quality of aftercare.
- Three monthly replacement is ideal for the marketing of combined lens and solution packages.
- Reduced patient dropout.
- Increase lens wearers' satisfaction (less deposit, improved vision quality via more frequent checks, lower costs in case of loss).
- Regular contact with the lens wearer emphasizes the competence and expertise of the specialist.

General Information

A unique manufacturing process

SwissLens has developed a unique manufacturing process based on nanometric lathe-cut machinery

- No manual adjustment required, for better reproducibility.
- Computerized and integrated production system.
- Shorter production cycle for faster delivery times.
- Reduction of overall manufacturing costs.

No polishing? Only advantages!

By manufacturing without the polishing phase, the SwissLens production system offers a number of advantages:

- No polishing residues.
- Better reproducibility: the lens retains its geometry from the point of manufacturing.
- Improved optical quality. Especially with complex lenses.

Simplicity and personalization

Our range of lenses are designed to fit all corneas and all types of ametropia, even in the most challenging cases.

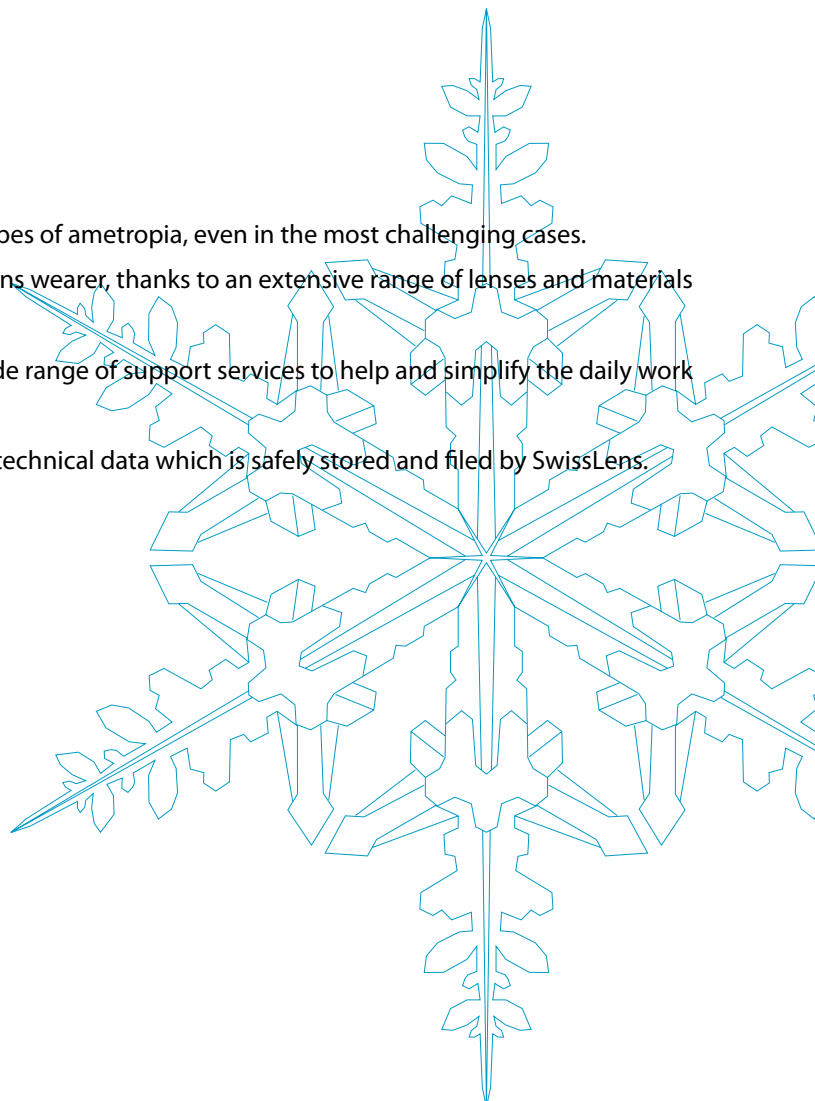
SwissLens is able to offer a personalised solution for each lens wearer, thanks to an extensive range of lenses and materials (including silicon hydrogel) in all geometries.

This vast choice of lens configurations is backed up by a wide range of support services to help and simplify the daily work of the lens specialist.

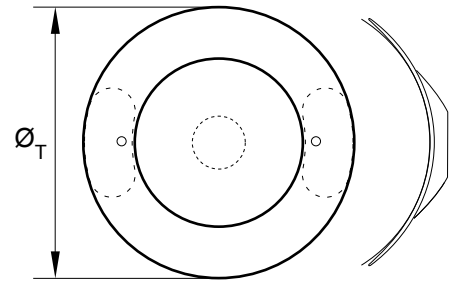
A unique SN number identifies each lens and its individual technical data which is safely stored and filed by SwissLens.

SwissLens is certified to ISO 9000:2000 and ISO 13485:2003

SwissLens CE mark is: 03-132-708



Toris-K *keratoconus*
Torelis-K *multifocal keratoconus*



Diameter & base curve

Recommendation is to use a trial-set.

1. Determine the grade of keratoconus (topography) 1-2 or 3-4
2. Determine the base curve & diameter: grade 1-2: $r_0 = 8,00 / \varnothing_T = 14,00$ mm
 grade 3-4: $r_0 = 7,80 / \varnothing_T = 13,70$ mm

Application flow:

1. Insert trial lens for minimum 30 minutes.
2. Determination of fitting and stabilisation.
3. Over refraction (you can use the autorefractometer for getting an idea of cyl/axis)
 If vision is not satisfactory after the over refraction: use flatter or steeper base curve, or increase centre-thickness.
4. Diagnostic contact lens ordered with found parameters and serial number (SN).
 Please note the serial number "SN"

Hints:

- For changes and control over several months, always use the initial (genesis) lens for over refraction.
- To remove the lenses, use the eyelids and push them together.
- In case of "halos" the optical zone can be enlarged.

Toris-K12 *Toric contact lens for keratoconus grade 1 and 2*

Toris-K34 *Toric contact lens for keratoconus grade 3 and 4*

Torelis-K12 *Multifocal toric contact lens for keratoconus grade 1 and 2*

Torelis-K34 *Multifocal toric contact lens for keratoconus grade 3 and 4*

	Parameters		Trial set	
	min	max	Toris-K12	Toris-K34
Diameter	12.00 ->	17.00 mm	14.00	13.70
Base curve	7.20 ->	10.80 mm	7.80 / 8.00 / 8.20	7.60 / 7.80 / 8.00
Sphere	- 40.00 ->	+ 40.00 dpt	Plan	Plan
Cylinder	- 0.25 ->	- 8.00 dpt	- 0.01 dpt	- 0.01 dpt
Axis	0° ->	180°	0°	0°
Addition	+ 0.50 ->	+ 4.00 dpt		
Flattening	strong (+) / very stark (++)		strong (+)	very strong (++)
Center thickness	0.35 ->	0.59 mm	0.45 mm	0.52 mm
Central optic zone	5.00 ->	7.50 mm	6.00 mm	6.00 mm
Materials	Definitive 74 / Igel 77		Igel 77	Igel 77

Toris-OP post-surgery
Torelis-OP multifocal post-surgery

Diameter & base curve

We suggest to work with trial lenses with -0,01 cylinder.

1. \varnothing_T = diameter cornea + 2.50 mm
2. First select the model if 2 or 3 curve-lenses are needed.
 Post-Lasik -> 2 curves (s1s);
 Post-Keratoplastik -> 3 curves (s2s)
3. Start by determining the central zone r_0 und \varnothing_0 :
 $r_0 = r_{flat} + 0.30 \text{ mm}$; \varnothing_0 = end of 1st distinctive border

For s1s: Determination of zone Z_{R1} :

r_1 = equal as standard curve of soft-lenses (e.g. 8.70).

For s2s: 1. Evaluation of zone Z_{R1} :

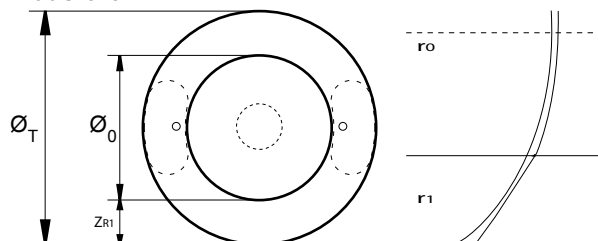
r_1 = evaluate radius to bridge over the scar tissue.

2. Determination of zone Z_{R2} :

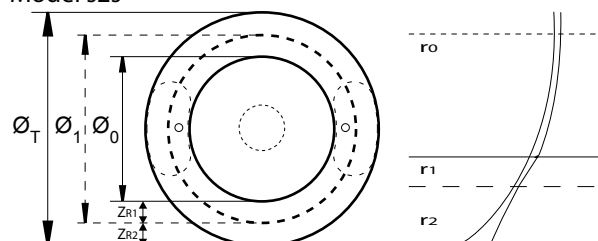
\varnothing_1 = ends at the beginning of 2nd distinctive border.

r_2 = equal as standard curve of soft-lenses (e.g. 8.70)

Model s1s



Model s2s



Application flow:

1. Insert trial lens for aprox. 30minutes
2. Determine fitting and stabilisation.
3. over refraction (you can use the autorefractometer)
 If vision is not satisfactory after over refraction: use flatter or steeper basecurve, or increase centre-thickness.
4. Examine the cornea and conjunctiva after the lens is removed with fluorescein.
5. Order the Final contact lens with the serial number "SN".
 Please note the serial number "SN".

Hints:

- for changes and control over several months always use the initial (genesis) lens for over refraction
- in case of "halos" the optical zone can be enlarged
- RGP - calculation-tools can be used for the determination of several base curves.

Toris-OP s1s

2-curve toric-dynamic post-surgical contact lens

Toris-OP s2s

3-curve toric-dynamic post-surgical contact lens

Torelis-OP s1s

2-curve multifocal toric-dynamic post-surgical contact lens

Torelis-OP s2s

3-curve multifocal toric-dynamic post-surgical contact lens

	Parameters		Trial set
	min	max	
Diameters	12.00	-> 17.00 mm	Toris-OP s1s (post lasik) 14.20 mm
Base curve	7.20	-> 10.80 mm	8.90 / 9.20 / 9.50 / 9.80
Sphere	- 40.00	-> + 40.00 dpt	Plan
Cylinder	- 0.25	-> - 8.00 dpt	-0.01 dpt
Axis	0°	-> 180°	0°
Addition	+0.50	-> +4.00 dpt	
Flattening	1 or 2 curves		1 curve ($r_1 = 8.70 \text{ mm}$)
Center thickness	Standard	-> 0.52 mm	Standard
Central optic zone	5.00	-> 8.50 mm	8.00 mm
Materials	all		Definitive 74 / GM3 58 / CTF 67

Therapeutic contact lenses

Bandage lens

Orbis-T

Range

Base curve (mm)	Diameter (mm)	Power (dpt)	Flattening
8.60 - 12.00	14.00 - 15.50	Plan	- / +
8.80 - 12.00	14.00 - 16.00	Plan	- / +
9.00 - 12.00	14.00 - 16.50	Plan	- / +
9.20 - 12.00	14.00 - 17.00	Plan	- / +
9.40 - 12.00	14.00 - 17.50	Plan	- / +
9.60 - 12.00	14.00 - 18.00	Plan	- / +

Materials: Definitive (silicon-hydrogel 74)
Igel 77

Baby lens

Orbis-B

Range

Base curve (mm)	Diameter (mm)	Power (dpt)	Flattening
6.90 - 12.00	12.00	+/- 40.00	- / + / Mono
7.20 - 12.00	12.50	+/- 40.00	- / + / Mono
7.40 - 12.00	13.00	+/- 40.00	- / + / Mono
7.60 - 12.00	13.50	+/- 40.00	- / + / Mono
7.80 - 12.00	14.00	+/- 40.00	- / + / Mono

Materials: Definitive (silicon-hydrogel 74)
Igel 77

Bandage lens x-large

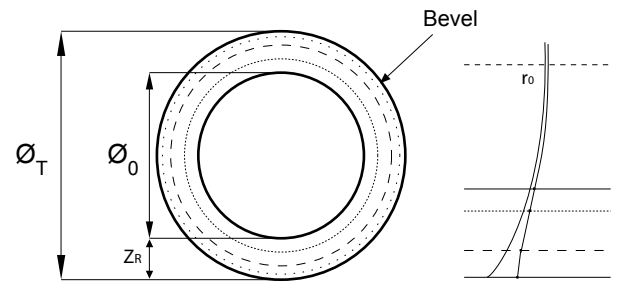
Orbis-XL

Range

Base curve (mm)	Diameter (mm)	Power (dpt)	Flattening
10.60 - 14.00	20.00	Plan	- / +
11.10 - 14.00	21.00	Plan	- / +

Materials: Contaflex 75

Orbiflex-K keratoconus



Determination of the first contact lens

We suggest using our trial set.

1. Determine stage of keratoconus (topography): grade 1-2 grade 3-4
2. Base curve and diameter: $r_0 = (r_{cflat} + r_{csteep}) / 2$ $\varnothing_T = \varnothing_{Cornea} - 2.0 \text{ mm}$
3. Contact lens power: $F' = F'_{(glasses 0mm)} - (r_{cflat} - r_0) * 5$
4. If too flat or too steep in centre - please change systematically.
5. Periphery: if too steep in case of K12 -> change to K34 with same base curve,
if too flat in case of K34 -> change to K12 with same base curve.
6. If result is not satisfactory, change to Orbiflex-sxs.
Easy-adaptation with our "online tool".

Application flow:

1. Insert trial lens for a minimum 30 minutes.
2. Determine the fitting and centring with fluorescein.
3. Over refraction, if vision is not satisfactory after over refraction: try a flatter or steeper base curve.
Please note the "SN".

Hints:

- For changes and control over several months use always the initial lens for over refraction.
- In case of "halos" the optical zone can be enlarged.

Orbiflex-K12

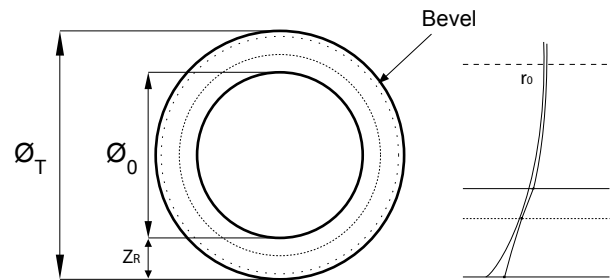
Spherical 4-curve keratoconus contact lens grad 1 and 2

Orbiflex-K34

Spherical 4-curve keratoconus-contact lens grad 3 and 4

	Parameters		Trial set	
	min	max	Orbiflex-K12	Orbiflex-K34
Diameter	7.50	-> 11.00 mm	9.50	9.50
Base curve	6.00	-> 9.00 mm	6.40 / 6.60 / 6.80 / 7.00 / 7.20	6.20 / 6.40 / 6.60 / 6.80 / 7.00
Sphere	- 40.00	-> + 40.00 dpt	Plan	Plan
Flattening	strong (+) / very strong (++)		strong (+)	very strong (++)
Central front zone	5.00	-> 7.50 mm	6.00 mm	6.00 mm
Materials	all		Optimum Classic blue	Optimum Classic blue

Orbiflex-OP post-surgical



Diameters & base curve

We suggest to use our trial set.

1. Ø_T = Diameter cornea - 1.00 mm
2. Determination base curve r_0 (topography): $r_0 = r_{\text{flat}}$
3. Contact lens power: $F' = F'_{(\text{glasses } 0\text{mm})}$
4. Determine peripheral zone Z_R : start with medium flattening (M), then flatter (F) or steeper.
5. If the adaptation is not satisfactory, try Orbiflex-SxS for fine tuning.

Use our online-calculation-tool.

Application flow:

1. Insert trial lens for a minimum of 30 minutes.
2. Determine the fitting and centring with fluorescein.
3. Over refraction. If vision is not satisfactory after over refraction: try flatter or steeper base curve.
4. Use the "SN" serial number to order the definitive lenses.
Please note the "SN".

Hints:

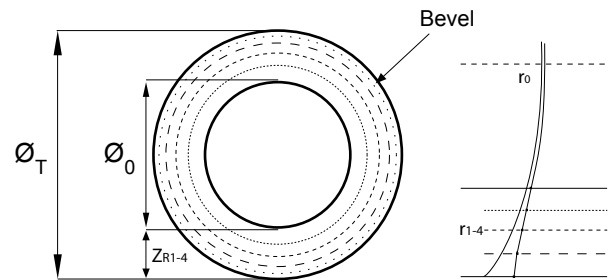
- For changes and control over several months use always the initial contact lens for over refraction.
- In case of "halos" the optical zone can be enlarged.

Orbiflex-OP

3-curve spherical contact lens for post-surgical cases

	Parameters		Trial set
	min	max	
Diamet	7.50	-> 11.00 mm	Orbiflex-OP 9.50
Base curve	6.00	-> 9.00 mm	8.20 / 8.40 / 8.60 / 8.80 / 9.00 / 9.20 / 9.40 / 9.60
Sphere	- 40.00	-> + 40.00 dpt	Plan
Flattening	M / S / F		M / S / F
Central front zone	5.00	-> 7.50 mm	6.00 mm
Materials	all		Optimum Classic blue

Orbiflex-sxs custom made



Diameter and base curve

1. Choice of the number of peripheral zones 1-4.
2. \varnothing_T = corneal diameter - 1.00 mm
3. Start with determination of first zone; r_0 and \varnothing_0 (topography):
 $r_0 = r_{\text{flat}}$; \varnothing_0 = End of the first distinctive boarder.
4. Then work backwards from the outer peripheral zone to the inner one.
5. Contact lens power: $F^l = F^l_{(\text{glasses } 0\text{mm})}$
6. To calculate vertex distance power adjustments, we recommend using our online-calculation tool.

Application flow:

1. Insert trial lens for a minimum of 30 minutes.
2. Determine the fitting and stabilisation with flourescein.
3. Over refraction. If vision is not satisfactory after over refraction: try flatter or steeper base curve and adapt the flattening for relevant zone.
4. Use the "SN" serial number to order the definitive lenses with the online-tool.
Please note "SN".

Hints:

- For changes and control over several months use always the initial lens for over refraction.
- In case of "halos" the optical zone can be enlarged.

Orbiflex-SxS

Contact lens 1- to 5-curve parameters are free of choice

	Parameters	
	min	max
Diameter	7.50	-> 11.00 mm
Base curve	6.00	-> 9.00 mm
Sphere	-40.00	-> +40.00 dpt
Flattening	free of choice	
Central front zone	5.00	-> 7.50 mm
Materials	all	

Materials

Soft contact lens materials

	Definitive 74 (silicone 74)	Igel 77	CTF 67	SnoFlex 68	GM3 58	Contaflex75	Igel 58	GM3 49
DK Fatt ISO 9913-1	60*/44**	39*/29**	30*/22**	27*/20**	25*/19**	43*/32*	21*/16**	16*/12**
Material type	Silicone Hydrogel	Hydrogel	Hydrogel	Hydrogel	Hydrogel	Hydrogel	Hydrogel	Hydrogel
Manufacturer	Contamac	Contamac	Contamac	Vista Optics	Contamac	Contamac	Contamac	Contamac
Classification	Filcon V3	Filcon II3	Filcon II2	Filcon II2	Filcon II1 (Acofilcon A)	Filcon II3	Filcon II1	Filcon II1 (Acofilcon B)
Water content	74%	77%	67%	68%	58%	75%	58%	49%
Refractive index	1.37	1.37	1.39	1.39	1.41	1.38	1.4	1.42
UV	√ (blue)	√	√		√	√	√	√

Gas permeable contact lens materials

	Optimum Extra Roflufocon D	Boston XO Hexafocon A	Optimum Comfort Roflufocon C	Boston EO Enflufocon B	Paragon-HDS HDS	Paragon-Thin Paflufocon C	Optimum Classic Roflufocon A	Boston ES Enflufocon A
DK Fatt / ISO (9913-1)	100*/75**	100*/75**	65*/49**	58*/44**	53*/40**	31*/23**	26*/19.5**	18*/15**
Manufacturer	Contamac	Polymer technology	Contamac	Polymer technology	Paragon	Paragon	Contamac	Polymer technology
Wettability angle	3° ³	49° ²	6° ³	49° ²	14.7° ³	12.8° ³	12° ³	52° ²
Refractive index	1.431	1.415	1.437	1.429	1.449	1.437	1.450	1.443
Hardness ⁴	75	79.3	79	83	84	85.3	83	85.4
Tint	blue / green	blue / green	blue / green	blue	blue / green	blue / green	blue / green	blue / green
UV	√	√	√	√	√	√	√	√

* $\times 10^{-11}(\text{cm}^2/\text{sec})$ [$\text{ml O}_2/(\text{ml} \times \text{mm Hg})$]

** $\times 10^{-11}(\text{cm}^2/\text{sec})$ [$\text{ml O}_2/(\text{ml} \times \text{hPa})$]

² Wettability angle (CLMA method)

³ Receding contact angle (CDA)

⁴ Shore D

⁵ Corneal astigmatism