

Soft and rigid gas permeable contact lenses

appenzeller
kontaktlinsen®
passt.

Personnelle-KK Excellent-KK

Keratoconus contact lenses



High grade of keratoconus,
high demand: fits like a mould.

info@appenzeller-kontaktlinsen.ch
www.appenzeller-kontaktlinsen.ch



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Little bowls of plastic – big window to the world.

i-SOFT



3-monthly soft contact lenses
My yearly supply of soft contact lenses.
Per eye.

Personnelle



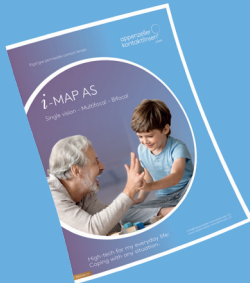
Unifocale – Multifocale – Style de vie
numérique
My contact lens. As unique as my fingerprint.

Excellent AS Excellent MK



Single vision – Multifocal – Bifocal
Classic, practical, excellent:
You can count on this contact lens.

i-MAP AS



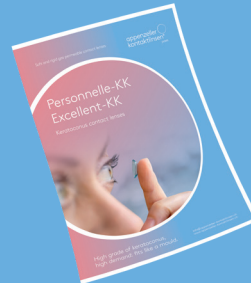
Single vision – Multifocal – Bifocal
High-tech for my everyday life:
Coping with any situation.

i-NIGHT



Orthokeratology at the highest level
Wear overnight – see during the day:
Without spectacles, without contact lenses.

Personnelle-KK Excellent-KK



Keratoconus contact lenses
High grade of keratoconus,
high demand: fits like a mould.

i-MAP



For fitting with irregular corneae
Fits when nothing else will.

i-MATRIX



Scleral lenses
Corneal damage, keratoconus,
keratoplasty? Still fits.

proASSIST



Professional support with progressive myopia
Smart contact lenses instead of thick
spectacle lenses.

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Individual keratoconus multifocal rigid gas permeable contact lens

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Excellent-KK

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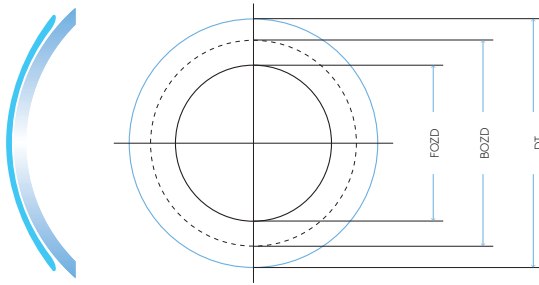
Our recommendation for the care regime of
soft and rigid gas permeable contact lenses



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PERSONNELLE-KK

Individual keratoconus
soft contact lens



Personnelle-KK

→ Product range

Everything that is technically possible. Ask us – we are open for your individual wishes.

→ Materials

See list on page 12.

→ Fitting recommendations

In order to be able to provide you optimal support during the fitting process, it is best to send us the corneal topography in advance. Then we will send you a suitable Personnelle-KK and will be pleased to give you advice for the procedure during the fitting.

→ Indication

Keratoconus up to grade 3.

→ Front surface design

- Spherical
- Prismatic stabilisation
- Dynamic stabilisation

→ Back surface design

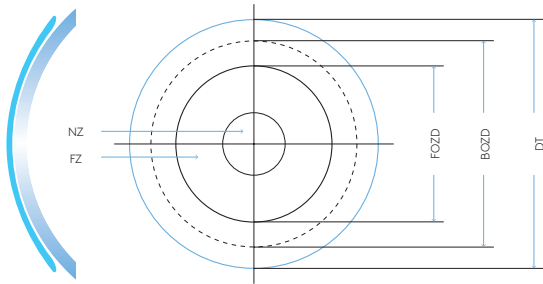
- Spherical or toric
- Bi-curve, available in 3 different steps of peripheral flattening according to the corneo-scleral profile

Description	Design
1	low peripheral flattening
2	normal peripheral flattening (standard)
3	high peripheral flattening

→ Exchange frequency

- 6 months
- 12 months

Individual keratoconus multifocal soft contact lens



Personelle-KK Progress-N

→ Selecting the zone size

Pupil size in normal room lighting conditions (≥ 3.5 mm)

Dominant eye distance	Central zone = 2.4 mm
Non-dominant eye	Central zone = 2.6 mm

→ Product range

Personnelle-KK Progress N

Back surface design	spherical
Base curve	7.5 to 9.3 mm in 0.05 mm steps
Spherical power range	± 30.0 D in 0.125 D steps
Diameter	12.0 to 15.5 mm in 0.1 mm steps
Reading add	0.5 to 3.5 D in 0.25 D steps
Near zone diameter	without restriction in 0.1 mm steps

Personnelle-KK Progress-N is available in toric-prismatic (TP) or toric-dynamic (TD) design.

Personnelle-KK Progress N TP/TD

Back surface design	Toric
Base curve	7.5 to 9.3 mm in 0.05 mm steps
Spherical power range	± 30.0 D in 0.125 D steps
Cylinder	-0.5 to -8.0 D in 0.125 D steps
Axis	0° to 180° in 1° steps
Diameter	12.0 to 15.0 mm in 0.1 mm steps
Reading add	0.5 to 3.5 D in 0.25 D steps
Near zone diameter	without restriction in 0.1 mm steps

→ Indications

- Keratoconus up to grade 3
- Presbyopia

→ Front surface design

- Correction according to the simultaneous principle
- Multifocal, concentric structure, centre near
- The central zone contains the near and intermediate correction at a ratio of 75%:25%
- The zone ratio can be freely selected
- Multifocal
- Centre near
- Toric version prismatic or dynamic stabilisation

→ Back surface design

- Spherical or toric
- Bi-curve, available in 3 different steps of peripheral flattening according to the corneo-scleral profile

Description	Design
1	low peripheral flattening
2	normal peripheral flattening (standard)
3	high peripheral flattening

→ Materials

See list on page 12.

→ Fitting recommendations

In order to be able to provide you optimal support during the fitting process, it is best to send us the corneal topography in advance. Then we will send you a suitable single vision Personelle-KK spherical or toric and will be happy to give you advice for the procedure during the fitting.

→ Exchange frequency

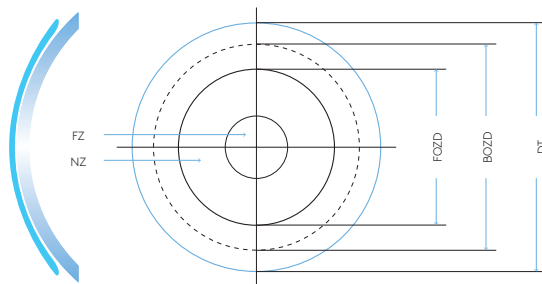
- 6 months
- 12 months



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PERSONNELLE-KK *Progress-F*

Individual keratoconus
multifocal soft contact lens



Personnelle-KK Progress-F

→ Indications

- Keratoconus up to grade 3
- Presbyopia

→ Front surface design

- Correction according to the simultaneous principle
- Multifocal, concentric structure, centre distance
- The central zone contains the far and intermediate correction at a ratio of 75%:25%
- The zone ratio can be freely selected
- Multifocal
- Centre distance
- Toric version prismatic or dynamic stabilisation

→ Back surface design

- Spherical or toric
- Bi-curve, available in 3 different steps of peripheral flattening according to the corneo-scleral profile

Description	Design
1	low peripheral flattening
2	normal peripheral flattening (standard)
3	high peripheral flattening

→ Selecting the zone size

Pupil size in normal room lighting conditions (≈ 3.5 mm)

Dominant eye distance	Central zone = 3.6 mm
Non-dominant eye	Central zone = 3.4 mm

→ Product range

Personnelle-KK Progress F

Back surface design	spherical
Base curve	7.5 to 9.3 mm in 0.05 mm steps
Spherical power range	± 30.0 D in 0.125 D steps
Diameter	12.0 to 15.5 mm in 0.1 mm steps
Reading add	0.5 to 3.5 D in 0.25 D steps
Distance zone diameter	without restriction in 0.1 mm steps

Personnelle-KK Progress-F is available in toric-prismatic (TP) or toric-dynamic (TD) design.

Personnelle-KK Progress F TP/TD

Back surface design	Toric
Base curve	7.5 to 9.3 mm in 0.05 mm steps
Spherical power range	± 30.0 D in 0.125 D steps
Cylinder	-0.5 to -8.0 D in 0.125 D steps
Axis	0° to 180° in 1° steps
Diameter	12.0 to 15.0 mm in 0.1 mm steps
Reading add	0.5 to 3.5 D in 0.25 D steps
Distance zone diameter	without restriction in 0.1 mm steps

→ Materials

See list on page 12.

→ Fitting recommendations

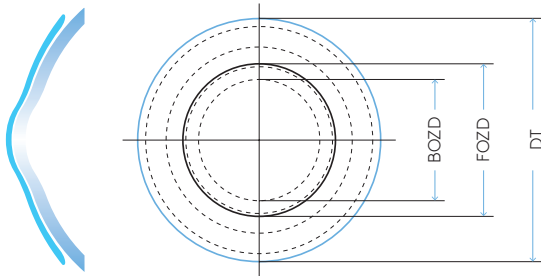
In order to be able to provide you optimal support during the fitting process, it is best to send us the corneal topography in advance. Then we will send you a suitable single vision Personnelle-KK spherical or toric and will be happy to give you advice for the procedure during the fitting.

→ Exchange frequency

- 6 months
- 12 months

EXCELLENT-KK

Individual keratoconus
rigid gas permeable contact lens



Excellent-KK

→ Design options

Design	Description
VP	Front prism ballast
VPT	Toric Front prism ballast
RT (VP)	Back toric (Front prism ballast)
BT (VP)	Bi-toric (Front prism ballast)
QSD (VP/VPT)	QuadrantSpecificDesign

→ Product range

Excellent KK

Base curve	4.8 to 8.5 mm in 0.05 mm steps
Flattening factor «AF»	-4.0 to +4.0 in 0.5 steps
Spherical Power range	±30.0 D in 0.125 D steps
Cylinder	from -0.5 D in 0.125 D steps
Axis	0° to 180° in 1° steps
Diameter	8.3 to 10.5 mm in 0.1 mm steps

→ Indications

All grades of keratoconus (KK).

→ Front surface design

Spherical or toric.

→ Back surface design

- Spherical or toric
- Back optic zone BOZD, followed by several continuously flatter radii
- The peripheral flattening of the multi-curve back surface is defined by only one parameter – the flattening factor «AF»
- Comfort bevel ensures a high wearing comfort and an optimal tear film exchange

→ Materials

See list on page 13.

→ Fitting recommendations

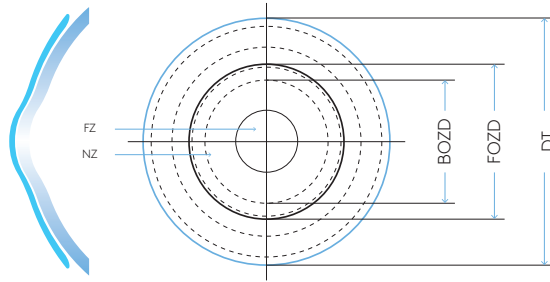
See page 11.



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EXCELLENT-KK *Progress-F*

Individual keratoconus multifocal rigid gas permeable contact lens



Excellent-KK Progress-F

→ Indications

- All grades of keratoconus (KK)
- First choice for the correction of presbyopia with multifocal, special rigid gas permeable contact lenses

→ Front surface design

- Correction according to the simultaneous principle
- Multifocal, concentric structure, centre distance
- The central zone contains the far and intermediate correction at a ratio of 75%:25%
- The zone ratio can be freely selected
- Multifocal, spherical or toric
- Centre distance

→ Back surface design

- Spherical or toric
- Back optic zone BOZD, followed by several continuously flatter radii
- The peripheral flattening of the multi-curve back surface is defined by only one parameter – the flattening factor «AF»
- Comfort bevel ensures a high wearing comfort and an optimal tear film exchange

→ Selecting the zone size

Dominant eye distance	Central zone = 4.5 mm
Non-dominant eye	Central zone = 4.3 mm

→ Design options

Design	Description
VP	Front prism ballast
VPT	Toric Front prism ballast
RT (VP)	Back toric (Front prism ballast)
BT (VP)	Bi-toric (Front prism ballast)
QSD (VP/VPT)	QuadrantSpecificDesign

→ Product range

Excellent KK	
Base curve	4.8 to 8.5 mm in 0.05 mm steps
Flattening factor «AF»	-4.0 to +4.0 in 0.5 steps
Spherical power range	±30.0 D in 0.125 D steps
Cylinder	from -0.5 D in 0.125 D steps
Axis	0° to 180° in 1° steps
Diameter	8.3 to 10.5 mm in 0.1 mm steps
Reading add	0.5 to 3.5 D in 0.25 D steps
Distance zone diameter	without restriction in 0.1 mm steps

→ Materials

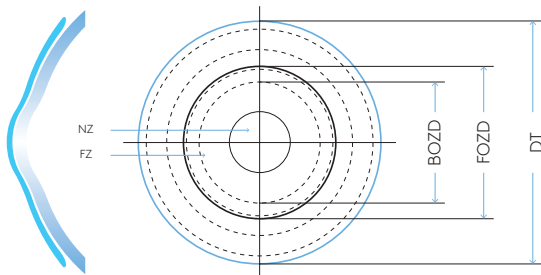
See list on page 13.

→ Fitting recommendations

See page 11.

EXCELLENT-KK *Progress-N*

Individual keratoconus multifocal
rigid gas permeable contact lens



Excellent-KK Progress-N

→ Selecting the zone size

Dominant eye distance	Central zone = 3.2 mm
Non-dominant eye	Central zone = 3.4 mm

→ Design options

Design	Description
VP	Front prism ballast
VPT	Toric Front prism ballast
RT (VP)	Back toric (Front prism ballast)
BT (VP)	Bi-toric (Front prism ballast)
QSD (VP/VPT)	QuadrantSpecificDesign

→ Product range

Excellent KK	
Base curve	4.8 to 8.5 mm in 0.05 mm steps
Flattening factor «AF»	-4.0 to +4.0 in 0.5 steps
Spherical power range	±30.0 D in 0.125 D steps
Cylinder	from -0.5 D in 0.125 D steps
Axis	0° to 180° in 1° steps
Diameter	8.3 to 10.5 mm in 0.1 mm steps
Reading add	0.5 to 3.5 D in 0.25 D steps
Near zone diameter	without restriction in 0.1 mm steps

→ Indications

- All grades of keratoconus (KK)
- Presbyopia

→ Front surface design

- Correction according to the simultaneous principle
- Multifocal, concentric structure, centre near
- The central zone contains the near and intermediate correction at a ratio of 75%:25%
- The zone ratio can be freely selected
- Multifocal, spherical or toric
- Centre near

→ Back surface design

- Spherical or toric
- Back optic zone BOZD, followed by several continuously flatter radii
- The peripheral flattening of the multi-curve back surface is defined by only one parameter – the flattening factor «AF»
- Comfort bevel ensures a high wearing comfort and an optimal tear film exchange

→ Materials

See list on page 13.

→ Fitting recommendations

See page 11.



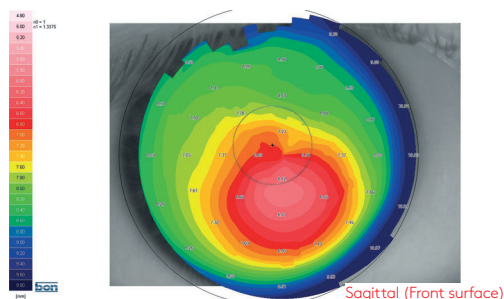
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EXCELLENT-KK

Individual keratoconus
rigid gas permeable contact lens

Case example

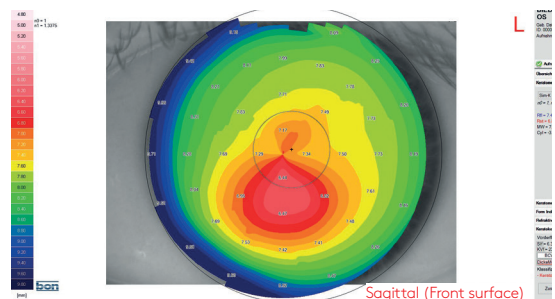
→ Example 1 (right eye)



Excellent-KK BC 6.95 DIA 10.0 AF +1.5
shows in the fluorescein pattern:

- an ideal central bridging
- an ideal mid-peripheral rotationally symmetrical landing
- an ideal tear film exchange at the edge (Bevel)

→ Example 2 (left eye)



Excellent-KK BC 7.15 DIA 10.0 AF +1.0
shows in the fluorescein pattern:

- an ideal central bridging
- an ideal mid-peripheral rotationally symmetrical landing
- an ideal tear film exchange at the edge (Bevel)

Fitting recommendations

Step 1

Choosing the base curve (BC)

In most cases, the selection of the base curve is based on the mean value of the central corneal radii.

Example (see left side «Case example»)

Topography OD / OS	Base curve
Central radii average RE 6.95	6.95 mm
Central radii average LE 7.15	7.15 mm

The higher the flattening factor AF, the more the contact lens flattens peripherally. A modification of the flattening factor from AF 0.0 to AF +1.0 causes an increase of 0.1 mm in peripheral tear film exchange. A change of the base curve (with ideal bevel) of 0.1 mm causes a change of the flattening factor of 1.0.

Example

A trial lens Excellent-KK BC 7.2 AF 0.0 is 0.1 mm too flat at the centre with ideal bevel.

Order

Excellent-KK BC 7.1 AF +1.0

Step 2

Selecting the flattening factor (AF)

The selection of the flattening factor is based on the mean value of the numerical eccentricity of the cornea (nE).

numerical eccentricity of the cornea (nE; mean value)	flattening-factor (AF)
<0.8	AF -1.0
0.8 to 0.9	AF 0.0
0.9 to 1.0	AF +1.0
1.0 to 1.1	AF +2.0
1.1 to 1.2	AF +3.0
>1.2	AF +4.0

Step 3

Selecting the total diameter

The total diameter should be approximately 2 mm smaller than the HVID.

We will happily assist you for the fitting and calculation of the first trial lens. Please email us the topography and refraction data. For the further procedure of the fitting you can send us fluorescein images to support you.



MATERIAL LIST

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Soft contact lenses

Very good +++
Good ++
Insufficient +

	GM Advance 49	GM Advance 58	Contaflex 58	Contaflex 67	Contaflex 75	Contaflex GM3 58	Igel 77	Unisil 50	Definitive 65	SH74 Definitive	Benz G-3x	Benz G-4x	Benz G-5x	Genz G72 HW	Hiox 49	Hiox 54	Hema 38
Composition	HEMA/ GMA	HEMA/ GMA	MMA/ VP	MMA/ VP	MMA/ VP	HEMA/ GMA	MMA/ VP	Si/ VP	HEMA/ GMA	Si MVAC	HEMA/ GMA	HEMA/ GMA	HEMA/ GMA	HEMA/ GMA (MMA)	HEMA/ GMA	HEMA/ GMA	Poly- HEMA
Water content (%)	49	58	58	67	75	58	77	62	65	74	49	54	58	72	49	54	38
Dk-Value	16*	26*	21*	30*	43*	26*	45	50*	62*	60*	15*	20*	21*	42*			9
Modulus	0.36	0.16	0.75		0.35	0.27		0.8	0.75	0.35					0.44	0.34	
UV-filter	Yes	Yes	No	No	No		No	Yes	No	Yes	No	No	No	No	No	No	No
Handlingstint blue	Yes	Yes	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Nonionic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Tearing resistance	+++	++	+++	+++	++	+++	+	++	++	+	+++	++	++	+	+++	++	+++
Spontaneous tolerability	++	+++	+	++	+++	+++	+++	+++	++	+++	++	++	+++	+++	++	++	+
Wettability	+++	+++	++	++	++	+++	++	++	++	++	+++	+++	++	+++	+++	+++	++
Dry eye	++	++	+	+	+	++	+	++	++	++	++	++	+++	+++	++	++	++
Resistance to tear film containing lipids	+++	++	++	+	+	++	+	++	+	+	+++	++	++	+	+++	++	+++

* ISO 9913-1, Unit $\times 10^{-11}$ (cm²/sec) [mlO₂/(ml x mmHg)]

Care products For all materials listed at Appenzeller Kontaktlinsen, all care products for soft contact lenses available on the market can be used. Appenzeller Kontaktlinsen AG recommend hydrogen peroxide systems combined with weekly protein removal for soft contact lenses. In case of poor wettability due to tear conditions, we recommend the additional use of an alcohol-based cleaner (Appenzeller Cleaner).

SH 74 - Care products Hydrogen peroxide systems cannot be used for contact lenses made in SH-74 material, as they cause parameter changes. Instead, we recommend the use of a multipurpose solution.

Rigid gas permeable contact lenses

	Optimum Classic	Optimum Comfort	Optimum Extra	Optimum Extreme	Optimum Infinite	Boston IV	Boston ES	Boston Equalens	Bosteon EO	Boaton XO	Visaflex	PMMA	TLM
+++ Very good ++ Good + Sufficient - Not recommendable													
Composition	MMA + SI + F	MMA + SI + F	MMA + SI + F	MMA + SI + F	MMA + SI + F	MMA + SI	MMA + SI + F	MMA + SI + F	MMA + SI + F	MMA + SI + F	MMA + SI	MMA	MMA + SI + F
Dk-Value*	26	65	100	125	180	19	18	47	58	100	18	0-0.5	
Refractive index	1.450	1.441	1.431	1.432	1.438	1.469	1.443	1.438	1.429	1.415	1.492	1.490	1.45
Specific gravity (g/cm³)	1.190	1.178	1.160	1.150	1.200	1.100	1.220	1.190	1.230	1.270	1.120	1.180	
Wetting angle (°)	12***	6***	3***	6***		17**	52**	30**	49**	49**	25**	27**	
Surface hardness (Shore)	83	79	75	77	81	84	85	82	83	81	86	90	
UV- filter	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	
Tints	Blue	Aqua Blue Blue Green Brown	White Aqua Blue Green	Aqua Blue Blue Green Red Violet	White Aqua Blue	Blue	Aqua Blue Green	Blue	Aqua Blue Green	Aqua Blue Green Red Violet	Blue Green	White Grey	Red Violet
Resistance to tear film containing proteins	++	++	++	++	++	+	++	++	++	+++	+	+++	++
Resistance to tear film containing lipids	++	++	++	++	++	+++	++	++	+	+	+++	+++	+
Breaking resistance	+++	++	+	+	+	+++	+++	++	+++	++	+++	+++	++
Parameter stability	++	+	+	+	+	+++	+++	++	++	++	+++	+++	++
Overnight wearing (Ortho-K)	-	-	+	+	+	-	-	-	-	+	-	-	-

* ISO 9913-1, Unit $\times 10^{-11}$ (cm²/sec) [mLO₂/(ml x mmHg)] ** Bubble cap method *** Manufacturer indications

TLM is our trial lens material and cannot be sold



passt.

COMFORT AND SAFETY

Our recommendation for the care regime of individual soft and rigid gas permeable contact lenses:

Individual products
or sets.

Compiled
to your wishes.

Contact lenses are not just a product. Contact lenses are a process that begins with your consultation. And continues after a successful fitting. Because contact lenses need to be inserted and removed. And because they need to be cleaned and stored. That's why we don't just supply you with contact lenses made to order, but also with know-how made to order. This includes our Professional Service, which is there for you in word and action. It also includes care products and accessories that give your patients the greatest possible feeling of comfort, health and safety.

Clean and rinse, disinfect and store : This is the sequence. And accordingly, we offer you products that are precisely matched to each other in exactly the combination you want. Put together nicely as a set wrapped in thin transparent film, which can be removed without scissors.

Combination example:

- 1x Cleaner plus 1x Saline
plus 1x Peroxid plus 1x Enzyme
- 1x Cleaner plus 1x Saline
plus 1x All-in-One Soft/RGP

See also brochure Appenzeller Kontaktlinsen Comfort and safety

1. Cleaning
Daily

Appenzeller Kontaktlinsen® Cleaner

Alcohol-based cleaner

For daily care of rigid gas-permeable contact lenses (also GP-plasma-coated) and soft contact lenses.

2. Rinsing
Daily

Appenzeller Kontaktlinsen® Saline

Saline as inserting solution

For all types of contact lenses – except scleral lenses – and for rinsing of soft and rigid gas-permeable contact lenses. Both after cleaning the lens and before putting the lens on the eye.



3. Disinfection and storage Daily

Appenzeller Kontaktlinsen® Peroxyd

Disinfection and neutralisation in 1 hour

The disinfection and neutralisation can be carried out very simply, quickly and a 100% efficiently. Appenzeller Kontaktlinsen make it possible with this peroxide system. For conventional soft lenses, disposable lenses and rigid gas-permeable lenses (RGP)

Appenzeller Kontaktlinsen® All-in-One Soft

Disinfectant

For all those who do not opt for the peroxide system and its unusually rapid effect (see column on the left): All-in-One Soft – the multipurpose solution with sodium hyaluronate for longer effect, longer wearing time, longer feeling of comfort.

4. Protein removal Once a week

Appenzeller Kontaktlinsen® Enzyme

Intensive cleaning

Protein deposits build up on the lens every day. In addition to the daily neutralisation of the lenses, a weekly protein removal removing is needed when using the peroxide system.





Soft and rigid gas
permeable contact lenses

Personnelle-KK
Excellent-KK

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10 Reasons Why to choose Appenzeller Kontaktlinsen

→ Fitting success

We do everything we can to understand your wishes and ideas. So that your fitting is a complete success – for you and your patients.

→ Technological advantage

We put a great deal of effort into Research & Development to ensure that our contact lenses always meet the latest technological possibilities.

→ Swiss made

We demand the highest standards of the manufacturing quality of our contact lenses, so that they match your equally high expectations of Swiss made.

→ Reproducibility

We help you keeping your patients satisfied by ensuring that you receive the same lens as before with your repeat order.

→ Open ears

Our Professional Services team advises you competently, personally and patiently. They will answer every question and make sure you get the right contact lens in any case.

→ Custom made

Each contact lens is individually made to order for you, so that it matches your specifications a 100%.

→ Right to exchange

We send out our contact lenses with or without the right to exchange, so you can make the best choice for your needs. The option "with right to exchange" gives you financial security: you can order a different lens later. If you do so within the exchange period, you pay only a small excess. The date on the delivery note is decisive for the deadline.

- Soft contact lenses:
 - i-SOFT 3-monthly lenses: 1 month
 - 6-monthly lenses: 2 months
 - 12-monthly lenses: 3 months
- Rigid gas-permeable lenses: 3 months

→ Price advantage

We offer you favourable terms of payment. You can get extra benefits if you pay in advance. We will happily let you know about the current conditions on request.

→ Guarantee scheme

We take responsibility for our work so you can rely on us and our contact lenses with guarantee. Guarantee period:

- i-SOFT 3-monthly lenses: 1 month
- 6-monthly lenses: 2 months
- 12-monthly lenses: 3 months

Broken lens: Return us the lens within the guarantee period and we will replace it. We will credit it on your next invoice accordingly. The date on the delivery note is decisive for the guarantee period.

→ Long-term vision

We strive for a lasting business relationship with you, so that you can also count on us in the long term.