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NanOptika LLC,



MADE IN
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NANOPTIKA



CATALOGUE OF INTRAOULAR LENSES AND IOL DELIVERY SYSTEMS
Get to see!

HYDROPHILIC IOL "AQUAMARINE"

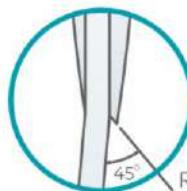
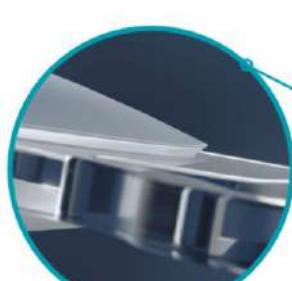
Product identification code	ACO11.03IOL/ACO11.03KIT AYO11.03IOL/AYO11.03KIT	ACQ11.03IOL/ACQ11.03KIT AYQ11.03IOL/AYQ11.03.KIT	ACZ1203IOL/ACZ12.03KIT AYZ12.03IOL/AYZ12.03KIT	ACS12.05IOL/ACS12.05KIT
Image				
Type of material	Hydrophilic acrylic with UV blocker & optional blue light filter CONTAMAC Ci26			Hydrophilic acrylic with UV blocker Action
Color	C-Clear Y-Yellow	C-Clear Y-Yellow	C-Clear Y-Yellow	C-Clear
Water contents	26%	26%	26%	26%
Refractive index	1,457	1,457	1,457	1,457
Abbe number	50	50	50	45
Type of IOL	Monofocal			
Optics	Aspheric-Aberration Neutral Biconvex			Spheric
Optic Diameter	6 mm	6 mm	6 mm	6 mm
Optic thickness (+20D)	0,94 mm	0,94 mm	0,94 mm	0,7 mm
Haptic design	O-shape closed	4-point with position holes	S-shape double closed	S-shape
Haptic thickness	0,29 mm	0,29 mm	0,29 mm	0,35 mm
Haptic angulation	0°	0°	0°	0°
Overall diameter	11 mm	11 mm	12,5 mm	12,5 mm
Incision width	2,2-2,4 mm	2,2-2,4 mm	2,2-2,4 mm	2,2-2,4 mm
PCO prevention	360-degree square edge and additional reverse sharp angle			360-degree square edge
Kitting	IOL	IOL	IOL	IOL
	Kit with injector	Kit with injector	Kit with injector	Kit with injector
Diopter range	+6,0 D → +10,0 D (1,00 steps) +10,0 D → +29,5 D (0,50 steps) +30,0 D → +40,0 D (1,00 steps)			-6,0 D → +10,0 D (1,00 steps) +10,0 D → +29,5 D (0,50 steps) +30,0 D → +45,0 D (1,00 steps)

HYDROPHOBIC IOL "CITRINE"

Product identification code	CCL13.03IOL/CCL13.03KIT	CCS12.05IOL/CCS12.05KIT	CCS13.02IOL/CCS13.02KIT	CCS13.02 PLD
Image				
Type of material	Hydrophobic acrylic with UV blocker HI56 CONTAMAC	Hydrophobic acrylic with UV blocker CHA Action	Hydrophobic acrylic with UV blocker AHFO "Glistening free" SOLEKO	
Color	C-Clear	C-Clear	C-Clear	C-Clear
Water contents	0,50%	0,40%	2,90%	
Refractive index	1,552	1,555	1,497	
Abbe number	38	38	52	
Type of IOL	Monofocal			
Optics	Aspheric-Aberration Neutral Biconvex			
Optic Diameter	6 mm	6 mm	6 mm	
Optic thickness (+20D)	0,62 mm	0,59 mm	0,65 mm	
Haptic design	S-shape with position holes	Modified L-shape design	S-shape	
Haptic thickness	0,43 mm	0,39 mm	0,3 mm	
Haptic angulation	0°	0°	5°	
Overall diameter	13 mm	13 mm	13 mm	
Incision width	2,2-2,4 mm	2,2-2,4 mm	2,2-2,4 mm	2,0-2,2 mm
PCO prevention	360-degree square edge			360-degree square edge and additional rim
Kitting	IOL	IOL	IOL	Preloaded IOL
	Kit with injector	Kit with injector	Kit with injector	
Diopter range	+10,0 D → +30,0 D (0,50 steps)	+6,0 D → +10,0 D (1,00 steps) +10,0 D → +29,5 D (0,50 steps) +30,0 D → +35,0 D (1,00 steps)	+6,0 D → +10,0 D (1,00 steps) +10,0 D → +29,5 D (0,50 steps) +30,0 D → +35,0 D (1,00 steps)	

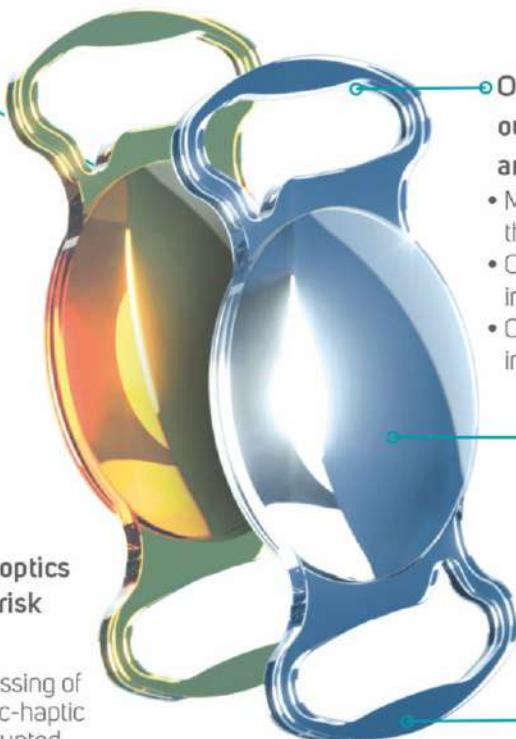
AQUAMARINE

Model ACO11.03 IOL/KIT of clear hydrophilic acrylic **CONTAMAC CI26**
 Model AYO11.03 IOL/KIT of yellow hydrophilic acrylic **CONTAMAC CI26Y**



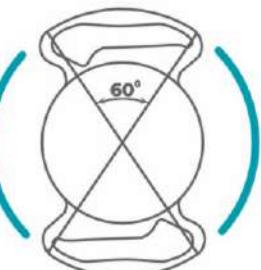
Reverse sharp angle of the optics posterior edge reduces the risk of PCO by three times

- Special high-precision processing of IOL's posterior edge in the optic-haptic junction, in addition to uninterrupted 360-degree square edge, prevents migration of Lens Epithelial Cells (LEC) and minimizes the risk of Posterior Capsule Opacification (PCO)



O-shape haptic provides outstanding stable centration and refractive predictability:

- Maximum contact angle within the capsular bag
- Outstanding centration even in case of lens subluxation
- Convenience of suture fixation in complex clinical cases



Imitation of the contact angle of haptic within the capsular bag (diameter - 10 mm) - 60°

Advanced aspheric optic design with equal optical power from center to edge improves quality of vision in every light condition:

- No «halos» and glare
- Greater depth of field
- High quality vision in low light

The overall size of 11 mm prevents the capsule bag from deformation:

- No folds on posterior capsule
- No capsular bag stretching

MATERIAL

Type of material	Hydrophilic acrylic with UV blocker & optional blue light filter Contamac CI26 (03)
Color	C-Clear/Y-Yellow
Water contents	26%
Refractive index	1.457
Abbe number	50

DESIGN

Type of IOL	Monofocal
Optics	Aspheric-Aberration Neutral Biconvex
Optic Diameter	6 mm
Optic thickness (+20D)	0.94 mm
Haptic design	O-shape closed
Haptic thickness	0.29 mm
Haptic angulation	0°
Overall diameter	11 mm
Incision width	2.2-2.4 mm
PCO Prevention	360-degree square edge and additional reverse sharp angle around the entire perimeter of IOL
Shelf Life	3 years after sterilization

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	+ 6.0 D -> +10.0 D (1.0 D steps) + 11.0 D -> +29.5 D (0.5 D steps) + 30.0 D -> +40.0 D (1.0 D steps)

RECOMMENDED CONSTANTS FOR AQUAMARINE ACO11.03, AYO11.03

A-SCAN ULTRASOUND BIOMETRY

SRK/T	Barrett
A-const	LF
118.0	1.36

OPTICAL BIOMETRY

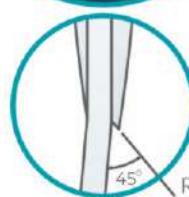
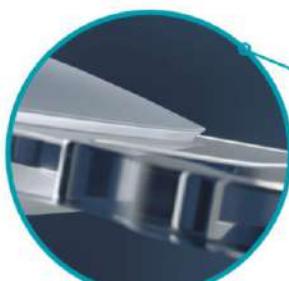
SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
118.3	1.52	0.85	0.4	0.1	1.29	5.14	5.07

AQUAMARINE

Telegin Technique

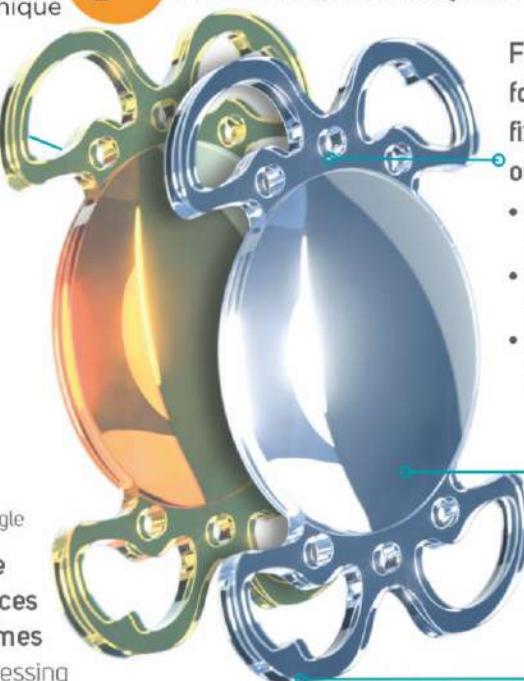


Model ACQ11.03 IOL/KIT of clear hydrophilic acrylic **CONTAMAC CI26**
 Model AYQ11.03 IOL/KIT of yellow hydrophilic acrylic **CONTAMAC CI26Y**



Reverse sharp angle of the optics posterior edge reduces the risk of PCO by three times

- Special high-precision processing of IOL's posterior edge in the optic-haptic junction, in addition to uninterrupted 360-degree square edge, prevents migration of Lens Epithelial Cells (LEC) and minimizes the risk of Posterior Capsule Opacification (PCO)



Four-point haptic with additional position holes for the convenience of suture fixation in complicated cases of cataract surgery.

- Maximum contact angle within the capsular bag
- Outstanding centration even in case of lens subluxation
- Convenience of suture fixation in complex clinical cases



Imitation of the contact angle of the haptic within the capsular bag (diameter-10 mm) - 70°

Advanced aspheric optic design with equal optical power from center to edge improves quality of vision in every light condition:

- No «halos» and glare
- Greater depth of field
- High quality vision in low light

The overall size of 11 mm prevents the capsule bag from deformation:

- No folds on posterior capsule
- No capsular bag stretching

Model TT (ACQ11.03/AYQ11.03) design was developed by surgeon K.Telegin for the convenience of scleral fixation of IOL

MATERIAL

Type of material	Hydrophilic acrylic with UV blocker & optional blue light filter Contamac CI26 (03)
Color	C-Clear/Y-Yellow
Water contents	26%
Refractive index	1.457
Abbe number	50

DESIGN

Type of IOL	Monofocal
Optics	Aspheric-Aberration Neutral Biconvex
Optic Diameter	6 mm
Optic thickness (+20D)	0.94 mm
Haptic design	4 closed loop design
Haptic thickness	0.29 mm
Haptic angulation	0°
Overall diameter	11 mm
Incision width	2.2-2.4 mm
PCO Prevention	360-degree square edge and additional reverse sharp angle around the entire perimeter of IOL
Shelf Life	3 years after sterilization

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	+ 6.0 D -> +10.0 D (1.0 D steps) + 11.0 D -> +29.5 D (0.5 D steps) + 30.0 D -> +40.0 D (1.0 D steps)

RECOMMENDED CONSTANTS FOR AQUAMARINE ACQ11.03, AYQ11.03

A-SCAN ULTRASOUND BIOMETRY

SRK/T	Barrett
A-const	LF
118.0	1.36

OPTICAL BIOMETRY

SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
118.3	1.52	0.85	0.4	0.1	1.29	5.14	5.07

AQUAMARINE

Model ACS12.05 IOL/KIT of clear hydrophilic acrylic Action

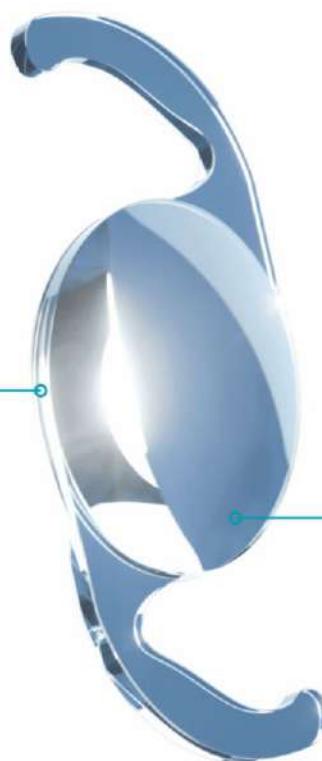
**Protection against PCO
(Posterior Capsule Opacification)**

Square edge 360° around
the entire perimeter of IOL



Imitation of the contact angle
of haptic within the capsular bag (diameter-10 mm) - 55°

Wide diopter range
from -6.0 D to +45.0 D



MATERIAL

Type of material	Hydrophilic acrylic with UV blocker Action (05)
Color	C-Clear
Water contents	26%
Refractive index	1.457
Abbe number	50

DESIGN

Type of IOL	Monofocal
Optics	Spheric
Optic Diameter	6 mm
Optic thickness (+20D)	0.7 mm
Haptic design	S-shape
Haptic thickness	0.35 mm
Haptic angulation	0°
Overall diameter	12.5 mm
Incision width	2.2-2.4 mm
PCO Prevention	360-degree square edge around the entire perimeter of IOL
Shelf Life	3 years after sterilization

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	-6.0 D -> +10.0 D (1.0D steps) + 10.0 D -> +29.5 D (0.5 D steps) + 30.0 D -> +45.0 D (1.0 D steps)

RECOMMENDED CONSTANTS FOR AQUAMARINE ACS12.05

A-SCAN ULTRASOUND BIOMETRY

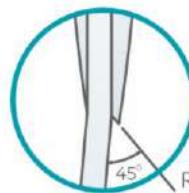
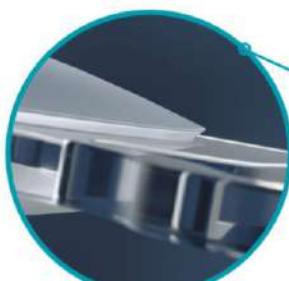
SRK/T	Barrett
A-const	LF
118.0	1.36

OPTICAL BIOMETRY

SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
118.3	1.52	0.85	0.4	0.1	1.29	5.14	5.07

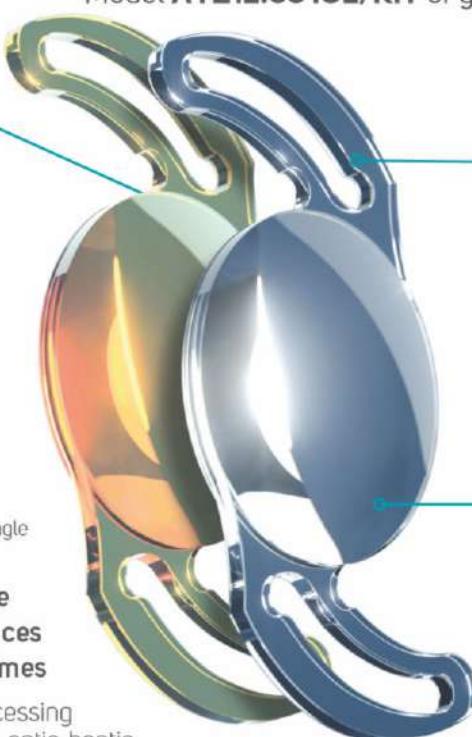
AQUAMARINE

Model ACZ12.03 IOL/KIT of clear hydrophilic acrylic **CONTAMAC CI26**
 Model AYZ12.03 IOL/KIT of yellow hydrophilic acrylic **CONTAMAC CI26Y**



Reverse sharp angle of the optics posterior edge reduces the risk of PCO by three times

- Special high-precision processing of IOL's posterior edge in the optic-haptic junction, in addition to uninterrupted 360-degree square edge, prevents migration of Lens Epithelial Cells (LEC) and minimizes the risk of Posterior Capsule Opacification (PCO)



S-shape with a double closed haptic for better centration
 in the capsular bag

- Maximum contact angle within the capsular bag
- Outstanding centration even in case of lens subluxation
- Convenience of suture fixation in complex clinical cases



Imitation of the contact angle of haptic within the capsular bag (diameter-10 mm) - 50°

Advanced aspheric optic design with equal optical power from center to edge improves quality of vision in every light condition:

- No «halos» and glare
- Greater depth of field
- High quality vision in low light

MATERIAL

Type of material	Hydrophilic acrylic with UV bloker & optional blue light filter CONTAMAC CI26 (03)
Color	C-Clear/Y-Yellow
Water contents	26%
Refractive index	1.457
Abbe number	50

DESIGN

Type of IOL	Monofocal
Optics	Aspheric-Aberration Neutral Biconvex
Optic Diameter	6 mm
Optic thickness (+20D)	0.94 mm
Haptic design	S-shape with a double closed haptic (Z)
Haptic thickness	0.29 mm
Haptic angulation	0°
Overall diameter	12.5 mm
Incision width	2.2-2.4 mm
PCO Prevention	360-degree square edge and additional reverse sharp angle around the entire perimeter of IOL
Shelf Life	3 years after sterilization

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	+6.0 D → +10.0 D (1.0D steps) + 10.0 D → +29.5 D (0.5 D steps) + 30.0 D → +40.0 D (1.0 D steps)

RECOMMENDED CONSTANTS FOR AQUAMARINE ACZ12.03, AYZ12.03

A-SCAN ULTRASOUND BIOMETRY

SRK/T	Barrett
A-const	LF
118.0	1.36

OPTICAL BIOMETRY

SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
118.3	1.52	0.85	0.4	0.1	1.29	5.14	5.07

Model **CCL13.03 IOL/KIT** of Hydrophobic acrylic **HI56 CONTAMAC**

S-shape design with additional position holes for the convenience of suture fixation in complicated cases of cataract surgery

Thin optic for easy implantation

Increased haptic strength for firm IOL centration in the capsular bag



Imitation of the contact angle of haptic within the capsular bag (diameter-10 mm) - 48°

Advanced aspheric optic design with equal optical power from center to edge improves quality of vision in every light condition:

- No «halos» and glare
- Greater depth of field
- High quality vision in low light

Model TT (CCL 13.03) design was developed by surgeon K.Telegin for the convenience of scleral fixation of IOL

MATERIAL

Type of material	Hydrophobic acrylic with UV blocker HI56 CONTAMAC (03)
Color	C-Clear
Water contents	0.50%
Refractive index	1.552
Abbe number	38

DESIGN

Type of IOL	Monofocal
Optics	Aspheric-Aberration Neutral Biconvex
Optic Diameter	6 mm
Optic thickness (+20D)	0.62 mm
Haptic design	S-shape with position holes
Haptic thickness	0.43 mm
Haptic angulation	0°
Overall diameter	13 mm
Incision width	2.2-2.4 mm
PCO Prevention	360-degree square edge
Shelf Life	3 years after sterilization (EO)

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	+10.0 D -> +30.0 D (0.5D steps)

RECOMMENDED CONSTANTS FOR CITRINE CCL13.03

A-SCAN ULTRASOUND BIOMETRY

SRK/T	Barrett
A-const	LF
119.0	1.88

OPTICAL BIOMETRY

SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
119.3	2.04	1.63	0.4	0.1	1.96	5.61	5.68

CITRINE Model CCS13.02.PLD of Hydrophobic acrylic AHFO "Glistening free" SOLEKO



- Device for implantation Accuject DUAL «2-in-1»
Freedom to choose and switch to the surgeon's preferred operating mode - "screw" or "push"
- Optics without spherical and chromatic aberrations (Abbe number >50)
- Stability in the capsular bag (contact angle of haptic within the capsular bag 55°)
- PCO prevention (Border around the optics posterior edge and 5-degree haptic angulation)
- Easy implantation through small incision

MATERIAL

Type of material	Hydrophobic acrylic with UV blocker AHFO "Glistening free" SOLEKO (02)
Color	C-Clear
Water contents	2.90%
Refractive index	1.497
Abbe number	52

DESIGN

Type of IOL	Monofocal
Optics	Aspheric-Aberration Neutral Biconvex
Optic Diameter	6 mm
Optic thickness (+20D)	0.65 mm
Haptic design	S-shape
Haptic thickness	0.3 mm
Haptic angulation	5°
Overall diameter	13 mm
Incision width	2.0-2.2 mm
PCO Prevention	360-degree square edge and additional rim
Shelf Life	3 years after sterilization (EO)

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	+6.0 D → +10.0 D (1.0D steps) +10.0 D → +29.5 D (0.5D steps) +30.0 D → +35.0 D (1.0D steps)

RECOMMENDED CONSTANTS FOR CITRINE CCS13.02

A-SCAN ULTRASOUND BIOMETRY

SRK/T	Barrett
A-const	LF
119.5	2.15

OPTICAL BIOMETRY

SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
119.7	2.25	1.77	0.4	0.1	2.19	5.95	5.97

CITRINE

Model **CCS12.05 IOL/KIT** of hydrophobic acrylic **CHA Action**

Modified L-shape design

- Increased haptic strength for firm IOL centration in the capsular bag



Protection against PCO
(Posterior Capsule Opacification)

Square edge 360° around the entire perimeter of IOL

- Thin optic for easy implantation.

- Advanced aspheric optic design with equal optical power from center to edge improves quality of vision in every light condition:

- No «halos» and glare
- Greater depth of field
- High quality vision in low light



MATERIAL

Type of material	Hydrophobic acrylic with UV blocker. CHA Action (05)
Color	C-Clear
Water contents	< 0.40%
Refractive index	1.555
Abbe number	38

DESIGN

Type of IOL	Monofocal
Optics	Aspheric-Aberration Neutral Biconvex
Optic Diameter	6 mm
Optic thickness (+20D)	0.59 mm
Haptic design	Modified - L Haptics
Haptic thickness	0.39 mm
Haptic angulation	0°
Overall diameter	13 mm
Incision width	2.2-2.4 mm
PCO Prevention	360-degree square edge
Shelf Life	3 years after sterilization (EO)

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	+6.0 D → +10.0 D (1.0D steps) +10.0 D → +29.5 D (0.5D steps) +30.0 D → +35.0 D (1.0D steps)

RECOMMENDED CONSTANTS FOR CITRINE CCS12.05

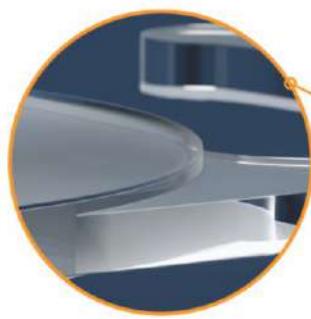
A-SCAN ULTRASOUND BIOMETRY

SRK/T	Barrett
A-const	LF
119.0	1.88

OPTICAL BIOMETRY

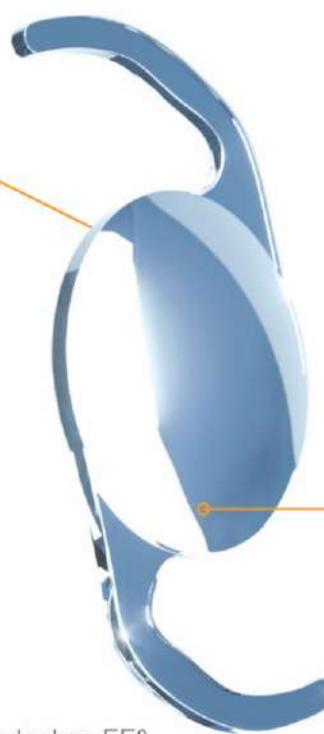
SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
119.3	2.04	1.63	0.4	0.1	1.96	5.61	5.68

CITRINE

Model **CCS13.02 IOL/KIT** of Hydrophobic acrylic AHFO "Glistening free" SOLEKO

Border around the optics posterior edge prevents PCO

- Tighter adhesion to posterior capsule
- Block of the light reflection in case of dilated pupil



Glistening-free parameter is ensured by water contents of $2,9\% \pm 0,2\%$

- Outstanding contrast and color sensitivity
- Simple loading and safe implantation
- Controlled lens unfolding



Imitation of the contact angle of haptic within the capsular bag (diameter-10 mm) - 55°

S-shape haptic with a 5-degree angulation provides outstanding stable centration and refractive predictability:

- Maximum contact angle within the capsular bag 55°
- Outstanding centration and stability in capsular bag
- Easy implantation

Advanced aspheric optic design with equal optical power from center to edge improves quality of vision in every light condition:

- No «halos» and glare
- Greater depth of field
- High quality vision in low light

MATERIAL

Type of material	Hydrophobic acrylic with UV blocker AHFO "Glistening free" SOLEKO (02)
Color	C-Clear
Water contents	2.90%
Refractive index	1.497
Abbe number	52

DESIGN

Type of IOL	Monofocal
Optics	Aspheric-Aberration Neutral Biconvex
Optic Diameter	6 mm
Optic thickness (+20D)	0.65 mm
Haptic design	S-shape
Haptic thickness	0.3 mm
Haptic angulation	5°
Overall diameter	13 mm
Incision width	2.2-2.4 mm
PCO Prevention	360-degree square edge and additional rim
Shelf Life	3 years after sterilization (EO)

OPTIONS

Kitting	IOL
	Kit with injector
Diopter range	+6.0 D → +10.0 D (1.0D steps) +10.0 D → +29.5 D (0.5D steps) +30.0 D → +35.0 D (1.0D steps)

RECOMMENDED CONSTANTS FOR CITRINE CCS13.02

A-SCAN ULTRASOUND BIOMETRY

SRK/T	Barrett
A-const	LF
119.5	2.15

OPTICAL BIOMETRY

SRK/T	Barrett	Haigis			Holladay 1	Holladay 2	HofferQ
A-const	LF	a0	a1	a2	SF	ACD	p-ACD
119.7	2.25	1.77	0.4	0.1	2.19	5.95	5.97