



# INTRAOCULAR LENS MANUFACTURER

CATARACT & REFRACTIVE SURGERY

---

Made in France

 CRISTALENS

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# WHO ARE WE?

Founded in 1994, CRISTALENS initially distributed medical devices for cataract surgery. In 2006, the company created its own production unit in Lannion for hydrophilic and hydrophobic intraocular lenses for cataract and refractive surgery, becoming the **first manufacturer of intraocular lenses in France**. In 2008, Cristalens developed a new hydrophobic raw material that allows for micro-incisions under 2.0 mm.

## By choosing CRISTALENS

you are collaborating with a French manufacturer that has **complete control of the manufacturing process**: from raw material production to final product packaging, with three key words and core values:

PATIENT SAFETY

INNOVATION

AVAILABILITY

## Cristalens and INNOVATION



**CRISTALENS INDUSTRIE received the Research and Innovation Prize in 2013 for creating its new hydrophobic material for its preloaded micro-incision monofocal and toric lenses.**

CRISTALENS strives to provide its clients with the best and most advanced products in the industry. Thanks to close collaboration with the best French universities and highly qualified employees, CRISTALENS is at the cutting edge of technological innovation.



## Cristalens and QUALITY



**CRISTALENS is NF EN ISO 13485 certified. Its intraocular lenses are CE 0459.**

CRISTALENS makes every effort to ensure optimum protection for the patient.

CRISTALENS only works with ISO-certified suppliers that are respected in the ophthalmic industry. Its automated and robotized manufacturing process optimizes the quality of its intraocular lenses.

## Cristalens and PRODUCTION



**Always striving to stay autonomous and responsive, CRISTALENS has complete control over its manufacturing:**

- raw material production
- design
- cryo-machining
- 100% optical and cosmetic control
- logistics

## Cristalens and DISTRIBUTION



**CRISTALENS's products are distributed on all continents, in more than 40 countries.**

Its «Regulatory Affairs» and «Export» departments fully master the challenges a distributor may face in terms of logistics and marketing support.





# HYDROPHOBIC RANGE

ARTIS MONOFOCAL 9

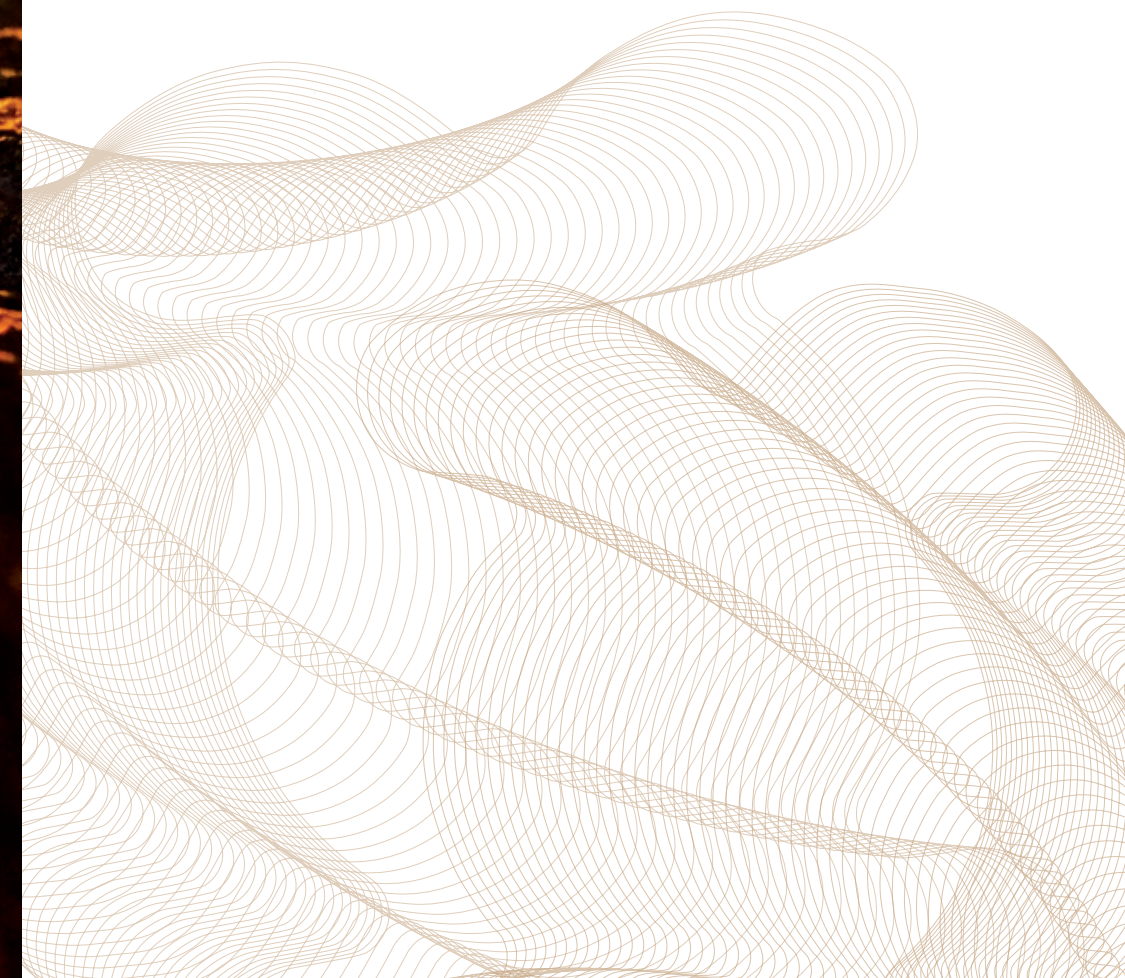
EAZ-Y 11

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# ARTIS<sup>®</sup> MONOFOCAL

## TECHNICAL SPECIFICATIONS



➤ **Monofocal**

Natural yellow filter

Reference: ARTIS<sup>®</sup> Y PL



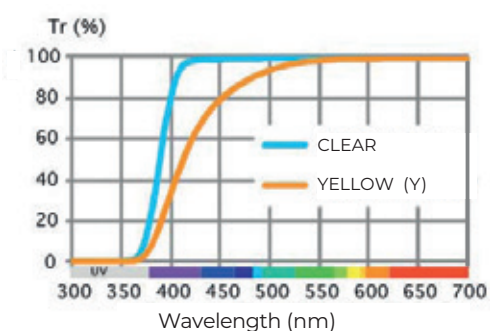
Reference: ARTIS<sup>®</sup> PL E



**PRELOADED**

<b>Lens type</b>	For implantation in the capsular bag
<b>Optic diameter</b>	6.15 mm (from 0.0D to +9.5D) 6.00 mm (from +10.0D to +25.0D) 5.80 mm (from +25.5D to +35.0D)
<b>Overall diameter</b>	11.00 mm (from 0.0D to +9.5D) 10.79 mm (from +10.0D to +25.0D) 10.50 mm (from +25.5D to +35.0D)
<b>Design</b>	One-piece square edge on 360°
<b>Optic design</b>	Monofocal Aspherical with negative spherical aberration to partly correct corneal spherical aberration
<b>Angulation</b>	5°
<b>Material</b>	Hydrophobic CBK 1.8 / CBJ 1.8 from Cristalens
<b>Dioptric powers</b>	From 0.0D to +35.0D by 0.5D
<b>Estimated A-Constant (SRK-T)</b>	119.3 Ultrasound biometry 119.7 Interference laser biometry
<b>Suggested anterior chamber depth (ACD)</b>	5.77 mm Ultrasound biometry 6.03 mm Interference laser biometry
<b>Refractive index</b>	1.54
<b>Sterilization</b>	Ethylene oxide
<b>Injection system</b>	Preloaded system
<b>Recommended incision size</b>	2.0 mm

Transmission spectrum



# EAZ-Y®

## TECHNICAL SPECIFICATIONS

PRELOADED



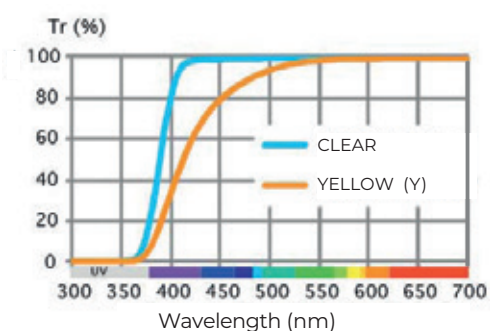
► Monofocal

Natural yellow filter  
Reference: EAZ-Y®



<b>Lens type</b>	For implantation in the capsular bag
<b>Optic diameter</b>	6.15 mm (from 0.0D to +9.5D) 6.00 mm (from +10.0D to +25.0D) 5.80 mm (from +25.5D to +35.0D)
<b>Overall diameter</b>	11.78 mm (from 0.0D to +9.5D) 11.50 mm (from +10.0D to +35.0D)
<b>Design</b>	One-piece square edge on 360°
<b>Optic design</b>	Monofocal Aspherical with negative spherical aberration to partly correct corneal spherical aberration
<b>Angulation</b>	5°
<b>Material</b>	Hydrophobic CBJ 1.8 from Cristalens
<b>Dioptric powers</b>	From 0.0D to +35.0D by 0.5D
<b>Estimated A-Constant (SRK-T)</b>	119.3 Ultrasound biometry 119.7 Interference laser biometry
<b>Suggested anterior chamber depth (ACD)</b>	5.77 mm Ultrasound biometry 6.03 mm Interference laser biometry
<b>Refractive index</b>	1.54
<b>Sterilization</b>	Ethylene oxide
<b>Injection system</b>	Preloaded system
<b>Recommended incision size</b>	2.0 mm

Transmission spectrum





# ARTIS<sup>®</sup> BIFOCAL

## TECHNICAL SPECIFICATIONS



PRELOADED

➤ Bifocal

Reference: ARTIS<sup>®</sup> PL M



<b>Lens type</b>	For implantation in the capsular bag
<b>Optic diameter</b>	6.00 mm (from +10.0D to +25.0D) 5.80 mm (from +25.5D to +35.0D)
<b>Overall diameter</b>	10.79 mm (from +10.0D to +25.0D) 10.50 mm (from +25.5D to +35.0D)
<b>Design</b>	One-piece square edge on 360°
<b>Optic design</b>	Bifocal Aspherical with negative spherical aberration to partly correct corneal spherical aberration Diffractive pattern on the anterior face, biconvex
<b>Angulation</b>	5°
<b>Material</b>	Hydrophobic CBK 1.8 from Cristalens
<b>Dioptric powers</b>	From +10.0D to +35.0D by 0.5D
<b>Additions (at IOL plane)</b>	+2.50D / + 3.00D
<b>Estimated A-Constant (SRK-T)</b>	119.3 Ultrasound biometry 119.7 Interference laser biometry
<b>Suggested anterior chamber depth (ACD)</b>	5.77 mm Ultrasound biometry 6.03 mm Interference laser biometry
<b>Refractive index</b>	1.54
<b>Sterilization</b>	Ethylene oxide
<b>Injection system</b>	Preloaded system
<b>Recommended incision size</b>	2.0 mm

# ARTIS<sup>®</sup> TORIC

## TECHNICAL SPECIFICATIONS

PRELOADED



- Monofocal
- Toric

Reference: ARTIS<sup>®</sup> T PL E



Lens type	For implantation in the capsular bag
Optic diameter	6.00 mm (from +10.0D to +25.0D) 5.80 mm (from +25.5D to +35.0D)
Overall diameter	10.79 mm (from +10.0D to +25.0D) 10.50 mm (from +25.5D to +35.0D)
Design	One-piece square edge on 360°
Optic design	Monofocal Aspherical with negative spherical aberration to partly correct corneal spherical aberration Toricity and marks on the posterior face, biconvex
Angulation	5°
Material	Hydrophobic CBK 1.8 from Cristalens
Dioptric powers (spherical equivalent)	From +10.0D to +35.0D by 0.5D
Cylinder powers	+0.75D / +1.50D / +2.25D / +3.00D +3.75D / +4.50D / +5.25D / +6.00D
Estimated A-Constant (SRK-T)	119.3 Ultrasound biometry 119.7 Interference laser biometry
Suggested anterior chamber depth (ACD)	5.77 mm Ultrasound biometry 6.03 mm Interference laser biometry
Refractive index	1.54
Sterilization	Ethylene oxide
Injection system	Preloaded system
Recommended incision size	2.0 mm



Toric calculator available on our website [www.cristalens.fr](http://www.cristalens.fr)



# ARTIS<sup>®</sup> MULTIFOCAL

## TECHNICAL SPECIFICATIONS

Two complementary profiles:

**PRELOADED**



**MID**

**PLUS**

- Multifocal
- Binocular phase continuity

Reference: ARTIS SYMBIOSE<sup>®</sup>



<b>Lens type</b>	For implantation in the capsular bag
<b>Optic diameter</b>	6.00 mm (from +10.0D to +25.0D) 5.80 mm (from +25.5D to +35.0D)
<b>Overall diameter</b>	10.79 mm (from +10.0D to +25.0D) 10.50 mm (from +25.5D to +35.0D)
<b>Design</b>	One-piece square edge on 360°
<b>Optic design</b>	Diffractive multifocal extended depth of focus with binocular complementarity Aspherical with negative spherical aberration to partly correct corneal spherical aberration Diffractive pattern on the anterior face, biconvex
<b>Angulation</b>	5°
<b>Material</b>	Hydrophobic CBK 1.8 from Cristalens
<b>Dioptric powers</b>	From +10.0D to +35.0D by 0.5D
<b>Additions (at IOL plane)</b>	MID: Superior intermediate vision - PLUS: Superior near vision
<b>Estimated A-Constant (SRK-T)</b>	119.3 Ultrasound biometry 119.7 Interference laser biometry
<b>Suggested anterior chamber depth (ACD)</b>	5.77 mm Ultrasound biometry 6.03 mm Interference laser biometry
<b>Refractive index</b>	1.54
<b>Sterilization</b>	Ethylene oxide
<b>Injection system</b>	Preloaded system
<b>Recommended incision size</b>	2.0 mm

ARTIS SYMBIOSE MID  
INTERMEDIATE VISION

ARTIS SYMBIOSE PLUS  
NEAR VISION

CONTINUOUS SHARP VISION  
FROM 40 TO 90 CM

MADE IN **FRANCE**

CE 0459

# ARTIS<sup>®</sup> MULTIFOCAL TORIC

## TECHNICAL SPECIFICATIONS

Two complementary profiles:

**PRELOADED**



**MID**

**PLUS**

- Multifocal
- Toric
- Binocular phase continuity

Reference: ARTIS SYMBIOSE<sup>®</sup>



<b>Lens type</b>	For implantation in the capsular bag
<b>Optic diameter</b>	6.00 mm (from +10.0D to +25.0D) 5.80 mm (from +25.5D to +35.0D)
<b>Overall diameter</b>	10.79 mm (de +10.0D à +25.0D) 10.50 mm (de +25.5D à +35.0D)
<b>Design</b>	One-piece square edge on 360°
<b>Optic design</b>	Diffractive multifocal extended depth of focus with binocular complementarity Aspherical with negative spherical aberration to partly correct corneal spherical aberration Diffractive pattern on the anterior face, toricity and marks on the posterior face, biconvex
<b>Angulation</b>	5°
<b>Material</b>	Hydrophobic CBK 1.8 from Cristalens
<b>Dioptric powers (spherical equivalent)</b>	From +10.0D to +35.0D by 0.5D
<b>Additions (at IOL plane)</b>	MID: Superior intermediate vision - PLUS: Superior near vision
<b>Cylinder powers</b>	+0.75D / +1.50D (+2.25D / +3.00D / +3.75D available upon request)
<b>Estimated A-Constant (SRK-T)</b>	119.3 Ultrasound biometry 119.7 Interference laser biometry
<b>Suggested anterior chamber depth (ACD)</b>	5.77 mm Ultrasound biometry 6.03 mm Interference laser biometry
<b>Refractive index</b>	1.54
<b>Sterilization</b>	Ethylene oxide
<b>Injection system</b>	Preloaded system
<b>Recommended incision size</b>	2.0 mm

ARTIS SYMBIOSE MID  
INTERMEDIATE VISION

ARTIS SYMBIOSE PLUS  
NEAR VISION

CONTINUOUS SHARP VISION  
FROM 40 TO 90 CM

MADE IN FRANCE

CE 0459



Toric calculator available on our website [www.cristalens.fr](http://www.cristalens.fr)





# C

## HYDROPHILIC RANGE

CLARÉ 23

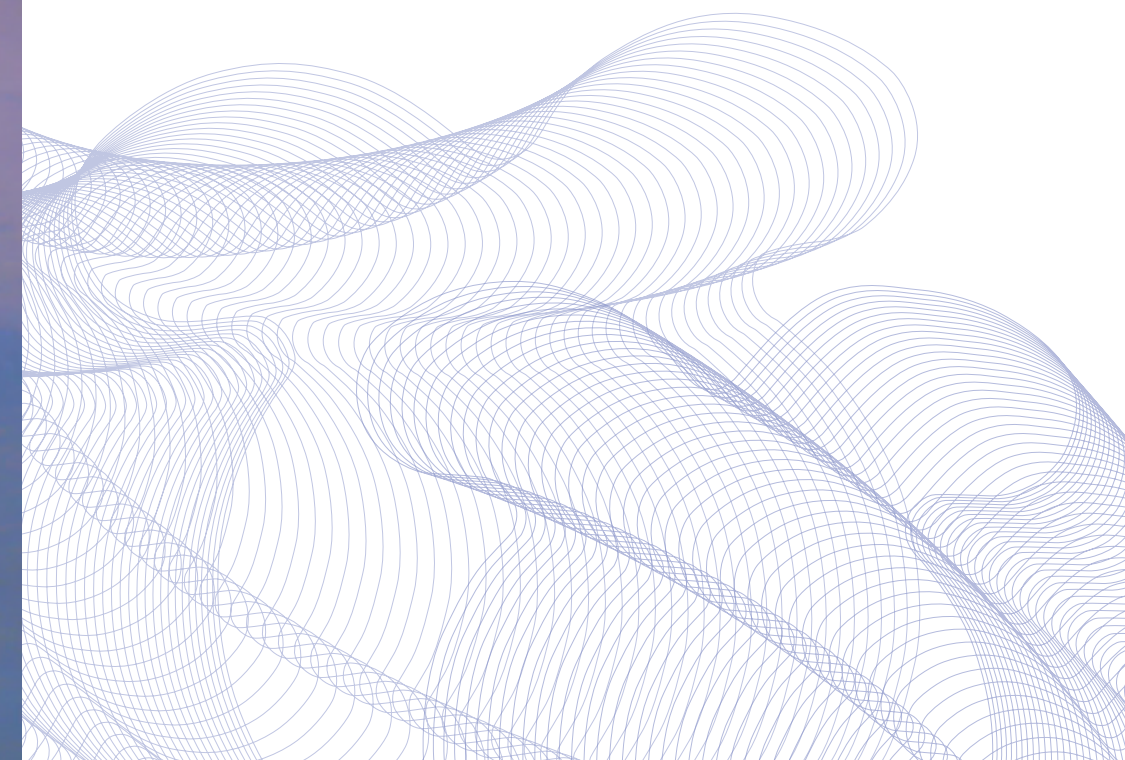
LUCIS 25

CRISTAL 27

## HYDROPHILIC PIGGY-BACK RANGE

REVERSO MONOFOCAL 29

REVERSO MULTIFOCAL 31





# CLARÉ®

## TECHNICAL SPECIFICATIONS



► Monofocal

Reference: CLARÉ®

<b>Lens type</b>	For implantation in the capsular bag
<b>Optic diameter</b>	6.00 mm (from +10.0D to +24.5D) 5.70 mm (from +25.0D to +30.0D)
<b>Overall diameter</b>	11.00 mm (from +10.0D to +14.5D) 10.75 mm (from +15.0D to +24.5D) 10.50 mm (from +25.0D to +30.0D)
<b>Design</b>	One-piece square edge on 360°
<b>Optic design</b>	Monofocal Aspherical with negative spherical aberration to partly correct corneal spherical aberration Biconvex
<b>Angulation</b>	8°
<b>Material</b>	Hydrophilic Benz 25 made of hydrophilic and hydrophobic copolymers
<b>Dioptric powers</b>	From +10.0D to +30.0D by 0.5D
<b>Estimated A-Constant (SRK-T)</b>	118.0 Ultrasound biometry 118.5 Interference laser biometry
<b>Suggested anterior chamber depth (ACD)</b>	4.96 mm Ultrasound biometry 5.25 mm Interference laser biometry
<b>Refractive index</b>	1.46
<b>Sterilization</b>	Steam
<b>Recommended injection system</b>	Single-use injector
<b>Recommended incision size</b>	1.8 to 2.2 mm



# LUCIS®

## TECHNICAL SPECIFICATIONS



► Monofocal

Reference: LUCIS®

Lens type	For implantation in the capsular bag
Optic diameter	6.00 mm
Overall diameter	11.00 mm (from - 9.0D to +9.5D) 10.50 mm (from +10.0D to +30.0D)
Design	One-piece
Optic design	Monofocal Spherical
Angulation	10°
Material	Hydrophilic Benz 25 made of hydrophilic and hydrophobic copolymers
Dioptric powers	From -9.0D to +30.0D by 0.5D
Estimated A-Constant (SRK-T)	118.0 Ultrasound biometry 118.5 Interference laser biometry
Suggested anterior chamber depth (ACD)	4.96 mm Ultrasound biometry 5.25 mm Interference laser biometry
Refractive index	1.46
Sterilization	Steam
Recommended injection system	Single-use injector
Recommended incision size	2.2 mm

# CRISTAL<sup>®</sup>

## TECHNICAL SPECIFICATIONS



► Monofocal

Reference: CRISTAL<sup>®</sup>

Lens type	For implantation in the capsular bag
Optic diameter	6.00 mm
Overall diameter	13.00 mm
Design	One-piece square edge on 360°
Optic design	Monofocal Aspherical with negative spherical aberration to partly correct corneal spherical aberration Biconvex
Angulation	10°
Material	Hydrophilic Benz 25 made of hydrophilic and hydrophobic copolymers
Dioptric powers	From +10.0D to +30.0D by 0.5D
Estimated A-Constant (SRK-T)	118.0 Ultrasound biometry 118.5 Interference laser biometry
Suggested anterior chamber depth (ACD)	4.96 mm Ultrasound biometry 5.25 mm Interference laser biometry
Refractive index	1.46
Sterilization	Steam
Recommended injection system	Single-use injector
Recommended incision size	2.2 mm



# REVERSO<sup>®</sup> MONOFOCAL

## TECHNICAL SPECIFICATIONS



- Piggy-back
- Monofocal

Reference: REVERSO<sup>®</sup>

Correct potential refractive errors in pseudophakic patients

Lens type	For implantation in the ciliary sulcus, in pseudophakic patients
Implantation location	Ciliary sulcus
Body diameter	6.50 mm
Overall diameter	13.80 mm
Design	One-piece round edge on 360°
Optic design	Monofocal Spherical Convex anterior face, concave posterior face
Angulation	10°
Material	Hydrophilic Benz 25 made of hydrophilic and hydrophobic copolymers
Dioptric powers	From -6.0D to +6.0 D by 0.5D
Estimated A-Constant	Non-applicable
Refractive index	1.46
Sterilization	Steam
Recommended injection system	Single-use injector
Recommended incision size	1.8 à 2.2 mm



Reverso calculator available on our website [www.cristalens.fr](http://www.cristalens.fr)

# REVERSO® MULTIFOCAL

## TECHNICAL SPECIFICATIONS



- Piggy-back
- Multifocal

Reference: REVERSO®

Presbyopia correction in pseudophakic patients

Lens type	For implantation in the ciliary sulcus, in pseudophakic patients
Implantation location	Ciliary sulcus
Body diameter	6.50 mm
Overall diameter	13.80 mm
Design	One-piece round edge on 360°
Optic design	Multifocal Spherical Convex anterior face, diffractive pattern on the concave posterior face
Angulation	10°
Material	Hydrophilic Benz 25 made of hydrophilic and hydrophobic copolymers
Multifocal specifications	Light distribution: 65% far to 35% near Step apodization: from Ø 3.0 mm to Ø 4.5 mm
Dioptric powers	From -3.0D to +3.0D by 0.5D
Additions (at IOL plane)	+1.50D / +2.00D / +2.50D / +3.00D / +3.50D
Estimated A-Constant	Non-applicable
Refractive index	1.46
Sterilization	Steam
Recommended injection system	Single-use injector
Recommended incision size	1.8 to 2.2 mm



Reverso calculator available on our website [www.cristalens.fr](http://www.cristalens.fr)

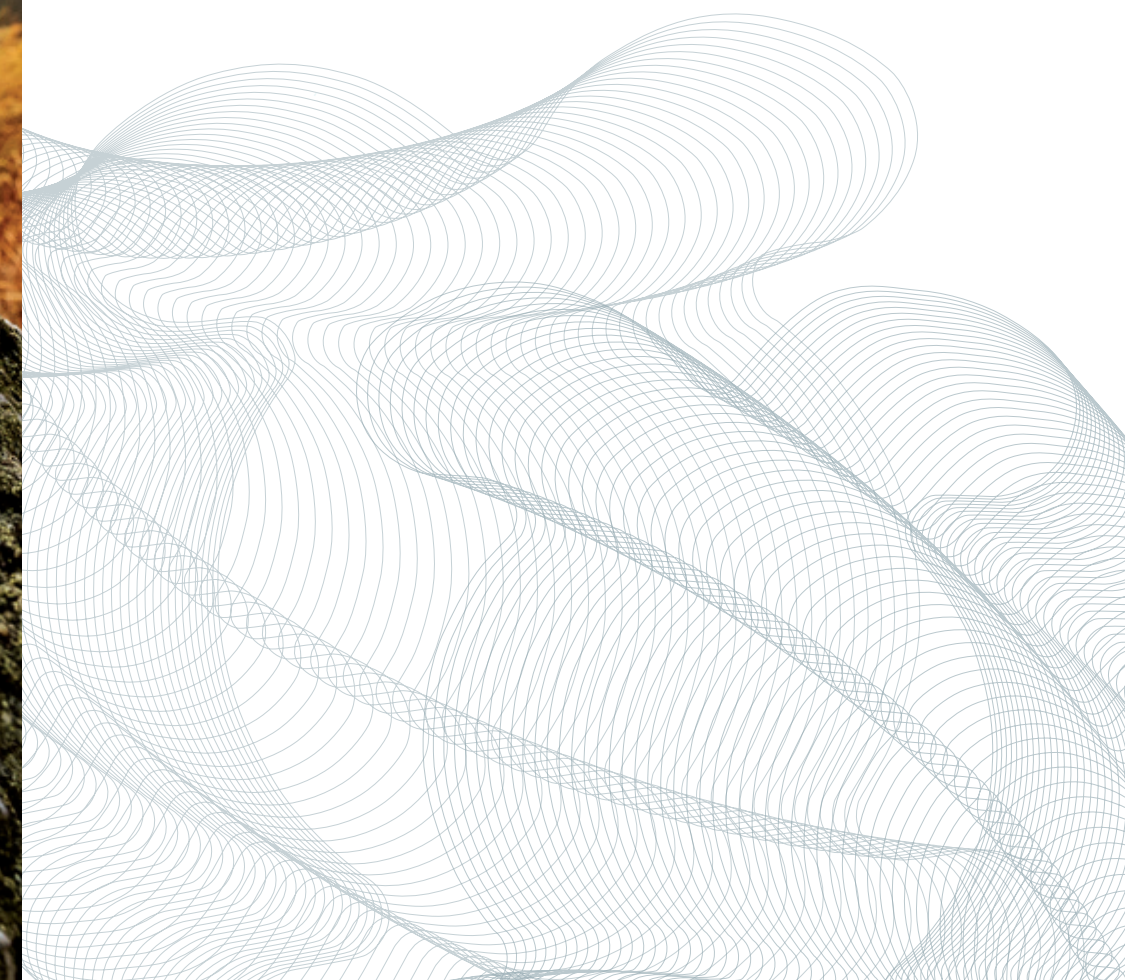




VISCOELASTIC

CRISTAVISC c<sup>®</sup>

35

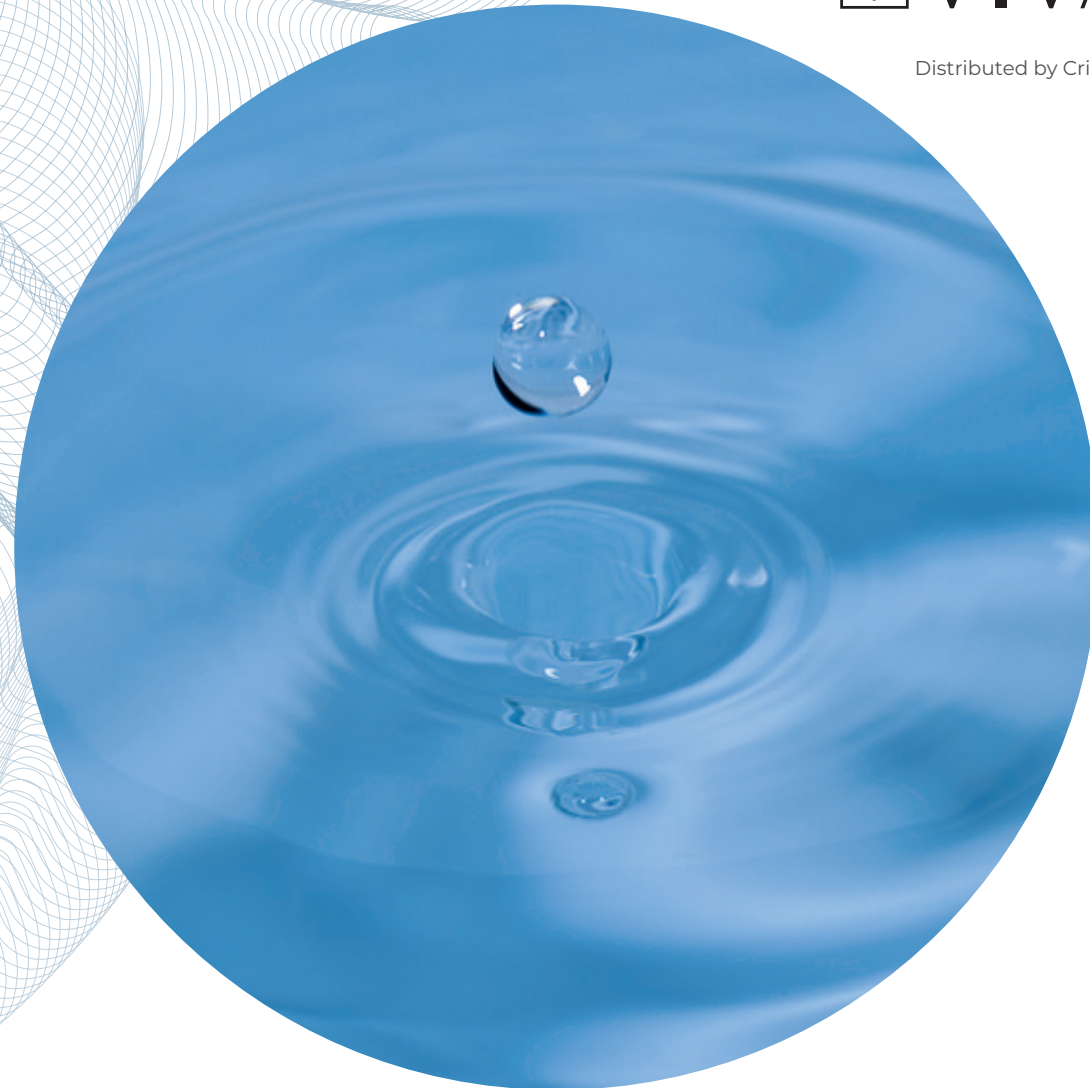




# CRISTAVISC c<sup>®</sup>



Distributed by Cristalens Industrie



- Coheso-dispersive product with mannitol
- With an average viscosity of 170 Pa.s
- Manufactured by the Vivacy Laboratories

Reference: CRISTAVISC c<sup>®</sup>

## TECHNICAL SPECIFICATIONS

<b>Eur. Ph. compliant, quality hyaluronic acid for intraocular use that is injectable and biofermentation in origin</b>	—
<b>Each box contains</b>	1 syringe - 1 x 27G 7/8" canula - 1 leaflet - 10 traceability labels
<b>Glass syringe, Pharmaceutical grade, Class I, latex free, prefilled</b>	At 1 ml
<b>NaHa concentration</b>	15.5 mg/g
<b>Molecular weight of the hyaluronic acid in the final sterile product</b>	2.2 MDa (mean value)
<b>Phosphate Buffer pH 7.2</b>	q.s. 1g
<b>With natural antioxidant</b>	Hyaluronic acid with mannitol
<b>Isoosmolarity</b>	310 mOsm (mean value)
<b>pH</b>	6.8 – 7.6
<b>Viscosity at 0,01s<sup>-1</sup> shear rate</b>	170 Pa.s (170 000 cPoise) (mean value)
<b>Apyrogen (no endotoxins)</b>	< 0.5 EU/g
<b>Sterile (gel by autoclave – second packaging with blister, sterilization with ethylene oxide)</b>	SAL 10 <sup>-6</sup> (Sterility Assurance Level)
<b>Proteins</b>	< 20 ppm
<b>Storage</b>	2°C to 25°C for up to 36 months
<b>Medical Device</b>	Class IIb
<b>Biocompatible according to</b>	ISO 10993 and ISO 15798
<b>Quality Management System certified</b>	ISO 13485

## INDICATIONS

Anterior segment surgery

Protection of the corneal endothelium and maintenance of the intraocular space

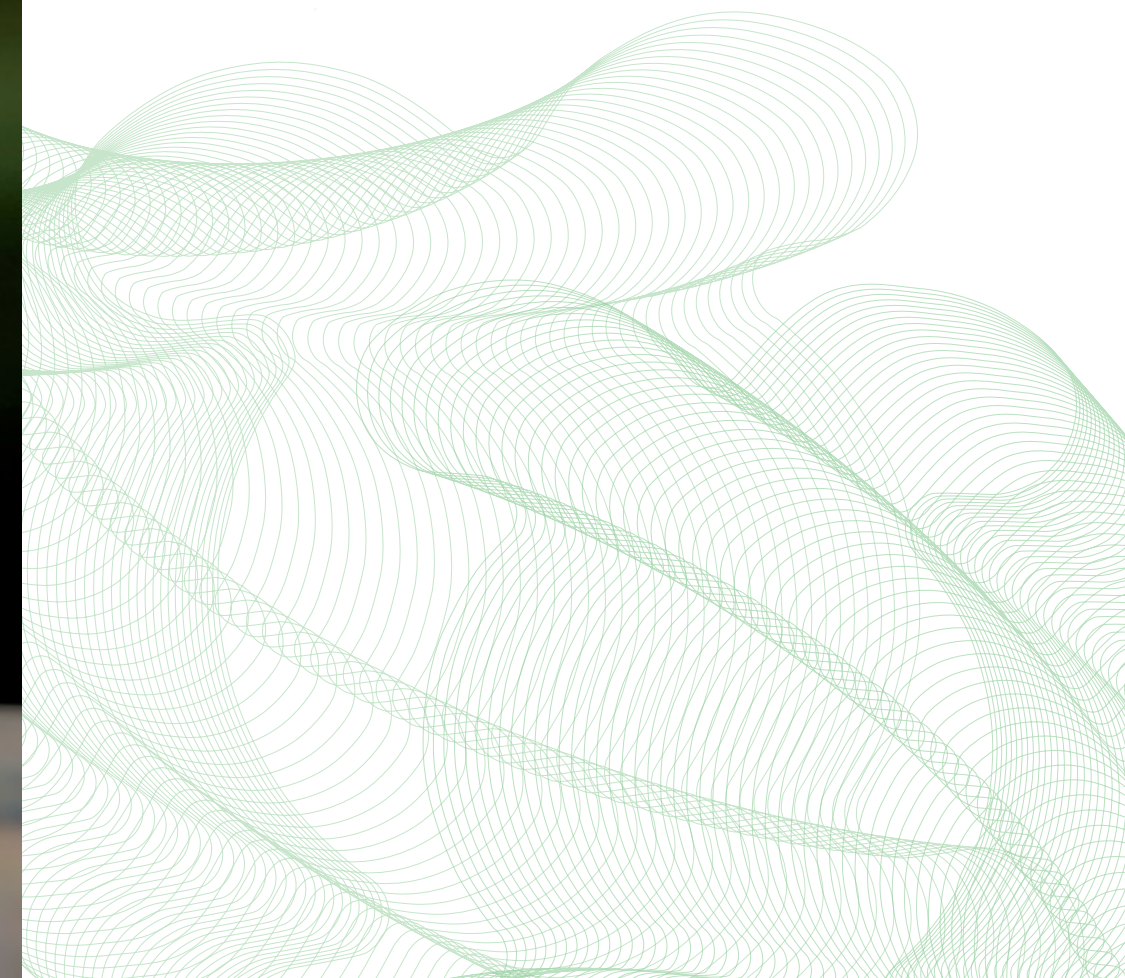
See «Description» in the CRISTAVISC c<sup>®</sup> instructions for use for more information





# VETERINARY RANGE

LOKI 39





# LOKI<sup>®</sup>

## TECHNICAL SPECIFICATIONS



**PRELOADED**

- Hydrophobic
- Monofocal
- For veterinary use

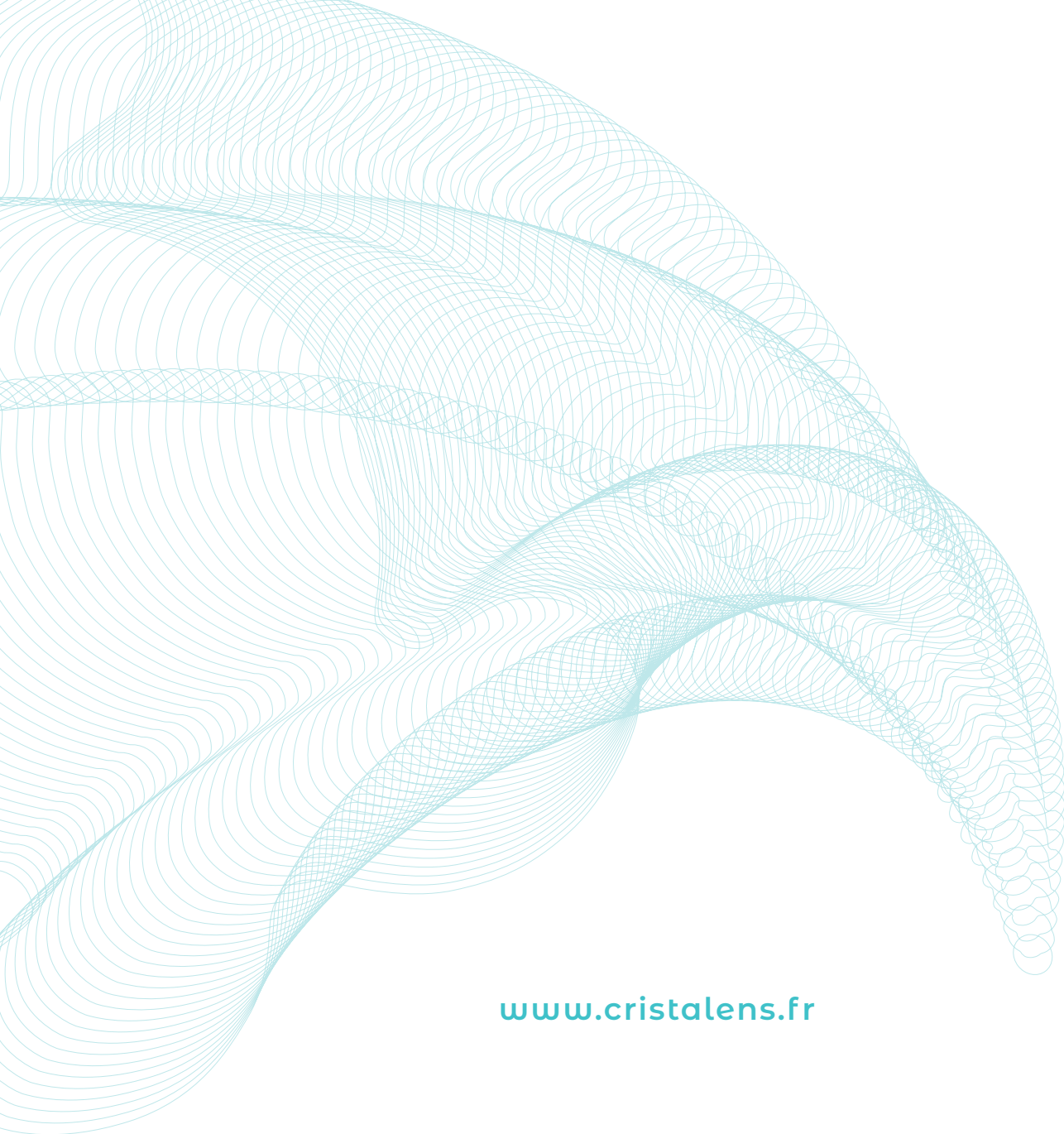
Reference: LOKI<sup>®</sup> PL

Lens type	For implantation in the canine capsular bag
Optic diameter	6.50 mm
Overall diameter	12.00 mm - 13.00 mm - 14.00 mm
Design	One-piece
Optic design	Monofocal Aspherical with negative spherical aberration to partly correct corneal spherical aberration Biconvex
Angulation	5°
Material	Hydrophobic CBK 1.8 from Cristalens
Dioptric power	+41.0D
Refractive index	1.54
Sterilization	Ethylene oxide
Injection system	Preloaded system
Recommended incision size	3.0 mm



MADE IN FRANCE





[www.cristalens.fr](http://www.cristalens.fr)



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