



# FRENCH INTRAOCULAR LENS MANUFACTURER

CATARACT & REFRACTIVE SURGERY

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Made in France





# WHO ARE WE?

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**CRISTALENS is an independent French company that manufactures and markets medical devices used in cataract and refractive surgery.**

A renowned French manufacturer in the ophthalmology industry, CRISTALENS is in total control of its business operations, from developing the raw material through to packaging. The medical devices manufactured by CRISTALENS targeting the European market bear the CE marking.

At the cutting edge of innovation, CRISTALENS is one of the first companies to design and market hydrophobic lenses.

## **Industrial Innovation Prize**

CRISTALENS received the 2013 Industrial Innovation Prize for the invention of a hydrophobic raw material composed by phenoxy ethyl acrylate, which allows micro-incisions of less than 1.8 mm entirely developed by our laboratory.

## **Horizon 2020 Programme**

CRISTALENS received, in 2020, international recognition from the European Commission who granted our Premium Intraocular lenses, Artis Symbiose technology the Horizon 2020 award.

## **International Business Awards**

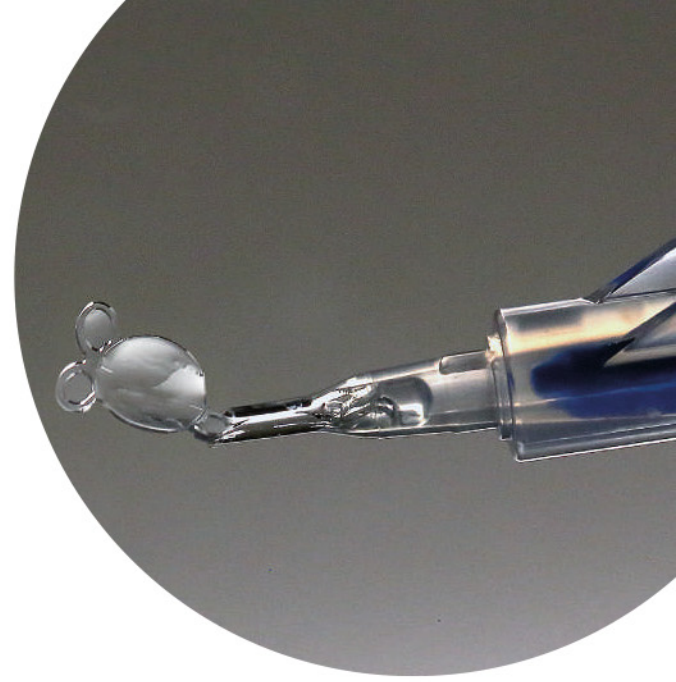
CRISTALENS were honoured and delighted to be awarded and nominated for our outstanding international development by the regional 2023 Business Awards, as well as the national Awards MOCI, we were also nominated for the INPI Awards, and more...

## **Our International Development**

CRISTALENS is continuing its export development strategy by constantly expanding its network of international distributors. More than 50 countries are currently listed in Europe, Asia, North Africa, the Middle East and South America.



# Our three key words and core values:



## PATIENT SAFETY



**We work primarily with ISO-certified suppliers with recognised reliability in the ophthalmology industry. Our production unit benefits from high-performance clean rooms for pre-cleaning, optical control and final inspection of its manufacturing processes. The polishing process is also conducted on site.**

CRISTALENS devices have obtained the CE 0459 marking and is also NF EN ISO 13485 certified.

CRISTALENS obtained the MDR certification in 2025 for our intraocular lenses Artis® PL E, Artis® T PL E, Artis Symbiose® and Artis Symbiose Toric®.

## INNOVATION



**CRISTALENS pioneered continuous binocular vision by developing the first pair of complementary multifocal intraocular lenses, Artis Symbiose in 2019. These lenses work together to achieve continuous vision from 40cm to distance vision.**

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

## PERFORMANCE



**The company has integrated all of the lens production phases into its production process in order to have total control over all products.**

This is achieved by focusing on:

- Design
- Raw material polymerisation
- Cryo-machining
- Inspecting each lens in the clean room
- Logistics

This ensures total independence and real added value!

# OUR PRODUCTS



6

ARTIS  
MONOFOCAL

HYDROPHOBIC  
PRELOADED

Ref: Artis® PL E



8

ARTIS MONOFOCAL  
TORIC

HYDROPHOBIC  
PRELOADED

Ref: Artis® T PL E



10

ARTIS  
MULTIFOCAL

HYDROPHOBIC  
PRELOADED

Ref: Artis® PL M



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ARTIS SYMBIOSE  
MID & PLUS

HYDROPHOBIC  
PRELOADED

Ref: Artis Symbiose®



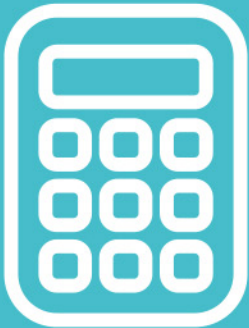
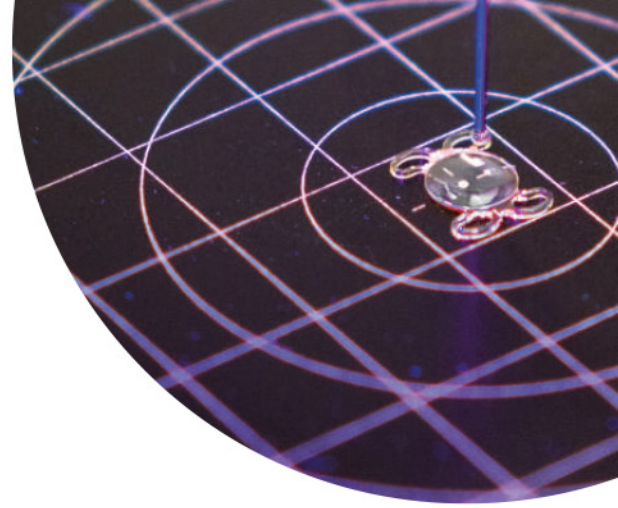
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ARTIS SYMBIOSE  
MID & PLUS TORIC

HYDROPHOBIC  
PRELOADED

Ref: Artis Symbiose®





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CRISTALENS  
CALCULATOR

TORIC  
CALCULATOR

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CLARÉ

HYDROPHILIC

Ref: Claré®

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CRISTAVISC c

VISCOELASTIC

Ref: Cristavisc c®

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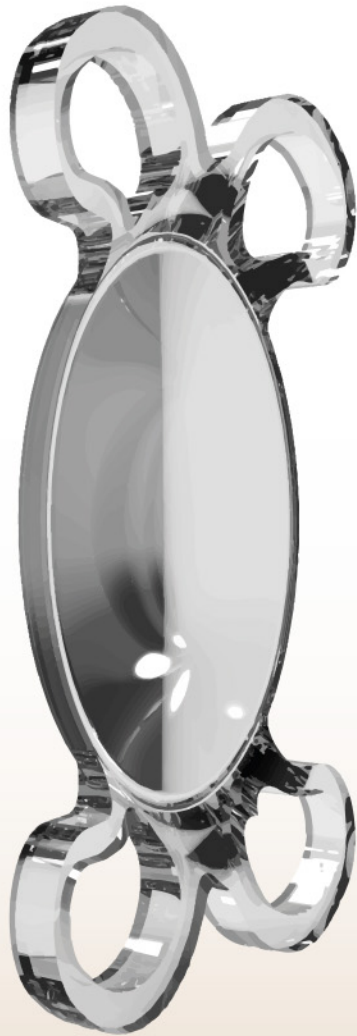
LOKI

VETERINARY

Ref: Loki® PL



# *Artis*<sup>®</sup> PL *E* MONOFOCAL



- Hydrophobic
- Preloaded
- Aspheric
- Small incision
- Single piece



# TECHNICAL SPECIFICATIONS

|                                               |                                                                                                           |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Lens type</b>                              | For implantation in the capsular bag                                                                      |
| <b>Optic diameter</b>                         | 6.15 mm (from 0.0D to +9.5D)<br>6.00 mm (from +10.0D to +25.0D)<br>5.80 mm (from +25.5D to +35.0D)        |
| <b>Overall diameter</b>                       | 11.00 mm (from 0.0D to +9.5D)<br>10.79 mm (from +10.0D to +25.0D)<br>10.50 mm (from +25.5D to +35.0D)     |
| <b>Design</b>                                 | One-piece square edge on 360°                                                                             |
| <b>Optic design</b>                           | Monofocal<br>Aspherical with negative spherical aberration to partly correct corneal spherical aberration |
| <b>Angulation</b>                             | 5°                                                                                                        |
| <b>Material</b>                               | Hydrophobic CBK 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<br>119.7 Interference laser biometry                                            |
| <b>Suggested anterior chamber depth (ACD)</b> | 5.77 mm Ultrasound biometry<br>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> T P L E

## MONOFOCAL TORIC



- Hydrophobic
- Preloaded
- Aspheric
- Small incision
- Single piece





# TECHNICAL SPECIFICATIONS

|                                               |                                                                                                                                                                 |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lens type</b>                              | For implantation in the capsular bag                                                                                                                            |
| <b>Optic diameter</b>                         | 6.00 mm (from +10.0D to +25.0D)<br>5.80 mm (from +25.5D to +35.0D)                                                                                              |
| <b>Overall diameter</b>                       | 10.79 mm (from +10.0D to +25.0D)<br>10.50 mm (from +25.5D to +35.0D)                                                                                            |
| <b>Design</b>                                 | One-piece square edge on 360°                                                                                                                                   |
| <b>Optic design</b>                           | Monofocal<br>Aspherical with negative spherical aberration to partly correct corneal spherical aberration<br>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>Cylinder powers</b>                        | +0.75D / +1.50D / +2.25D / +3.00D<br>+3.75D / +4.50D / +5.25D / +6.00D                                                                                          |
| <b>Estimated A-Constant (SRK-T)</b>           | 119.3 Ultrasound biometry<br>119.7 Interference laser biometry                                                                                                  |
| <b>Suggested anterior chamber depth (ACD)</b> | 5.77 mm Ultrasound biometry<br>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> PL M

## MULTIFOCAL



- Addition +2.5
- Addition +3.0
- For mix & match technique
- Hydrophobic
- Preloaded



# TECHNICAL SPECIFICATIONS

|                                               |                                                                                                                                                               |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lens type</b>                              | For implantation in the capsular bag                                                                                                                          |
| <b>Optic diameter</b>                         | 6.00 mm (from +10.0D to +25.0D)<br>5.80 mm (from +25.5D to +35.0D)                                                                                            |
| <b>Overall diameter</b>                       | 10.79 mm (from +10.0D to +25.0D)<br>10.50 mm (from +25.5D to +35.0D)                                                                                          |
| <b>Design</b>                                 | One-piece square edge on 360°                                                                                                                                 |
| <b>Optic design</b>                           | Bifocal<br>Aspherical with negative spherical aberration to partly correct corneal spherical aberration<br>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<br>119.7 Interference laser biometry                                                                                                |
| <b>Suggested anterior chamber depth (ACD)</b> | 5.77 mm Ultrasound biometry<br>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                                                                                                                                                        |

MADE  
IN FRANCE

CE 0459





# Artis<sup>®</sup> SYMBIOSE

## MID & PLUS



MID



PLUS

- Two complementary profiles for presbyopia correction
- Continuous vision from 40cm to distance vision
- Hydrophobic
- Preloaded

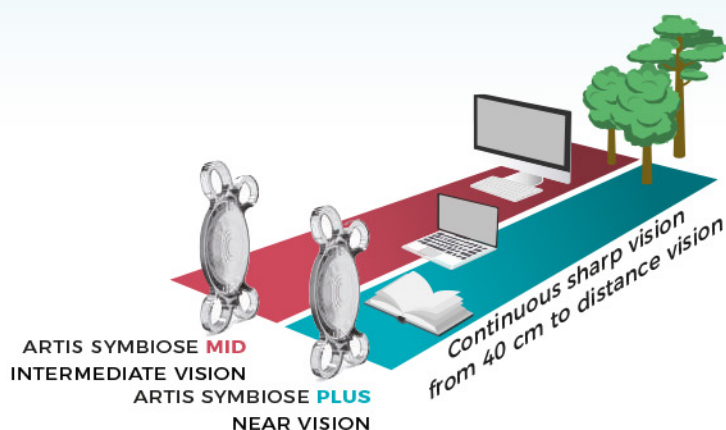


# TECHNICAL SPECIFICATIONS

|                                               |                                                                                                                                                                                                                                     |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lens type</b>                              | For implantation in the capsular bag                                                                                                                                                                                                |
| <b>Optic diameter</b>                         | 6.00 mm                                                                                                                                                                                                                             |
| <b>Overall diameter</b>                       | 10.79 mm                                                                                                                                                                                                                            |
| <b>Design</b>                                 | One-piece square edge on 360°                                                                                                                                                                                                       |
| <b>Optic design</b>                           | Diffractive multifocal extended depth of focus with binocular complementarity<br>Aspherical with negative spherical aberration to partly correct corneal spherical aberration<br>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<br>119.7 Interference laser biometry                                                                                                                                                                      |
| <b>Suggested anterior chamber depth (ACD)</b> | 5.77 mm Ultrasound biometry<br>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                                                                                                                                                                                                                              |

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# Artis<sup>®</sup> SYMBIOSE Toric

## MID & PLUS



MID



PLUS

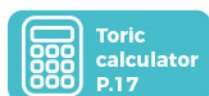
- Two complementary profiles for presbyopia correction
- Continuous vision from 40cm to distance vision
- Hydrophobic
- Preloaded





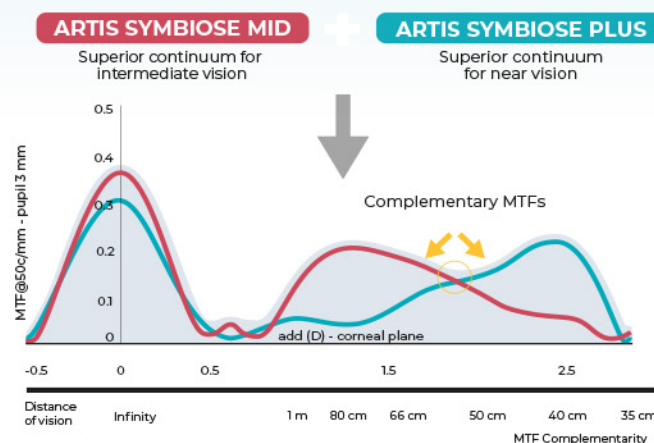
# TECHNICAL SPECIFICATIONS

|                                               |                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lens type</b>                              | For implantation in the capsular bag                                                                                                                                                                                                                                                                               |
| <b>Optic diameter</b>                         | 6.00 mm                                                                                                                                                                                                                                                                                                            |
| <b>Overall diameter</b>                       | 10.79 mm                                                                                                                                                                                                                                                                                                           |
| <b>Design</b>                                 | One-piece square edge on 360°                                                                                                                                                                                                                                                                                      |
| <b>Optic design</b>                           | <p>Diffractive multifocal extended depth of focus with binocular complementarity and variable toricity</p> <p>Aspherical with negative spherical aberration to partly correct corneal spherical aberration</p> <p>Diffractive pattern on the anterior face, toricity and marks on the posterior face, biconvex</p> |
| <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 on request)                                                                                                                                                                                                                                                              |
| <b>Estimated A-Constant (SRK-T)</b>           | 119.3 Ultrasound biometry<br>119.7 Interference laser biometry                                                                                                                                                                                                                                                     |
| <b>Suggested anterior chamber depth (ACD)</b> | 5.77 mm Ultrasound biometry<br>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                                                                                                                                                                                                                                                                                                             |



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CE 0459







**ArtisSymbiose®**

By  CRISTALENS



# TORIC CALCULATOR



The **Toric Calculator by CRISTALENS** helps you select the optimal toric intraocular lens for eyes with preoperative corneal astigmatism. Unlike many online calculators, our tool is classified as a **medical device**, ensuring reliability and precision.

- Determine the most effective **cylindrical power** to correct astigmatism and optimise visual outcomes.
- Utilize **total keratometry data**, including **posterior corneal astigmatism**, for advanced accuracy<sup>1</sup>.
- Assess the **predicted residual astigmatism** before surgery.
- Print calculation results with an **implantation map** showing the recommended **incision site** and **IOL-axis alignment**.



ARTIS® TORIC MONOFOCAL



ARTIS SYMBIOSE® TORIC

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[www.cristalens-international.com](http://www.cristalens-international.com)

Calculator access



1. Ueno Y, Hiraoka T, Beheregaray S, Miyazaki M, Ito M, Oshika T. Age-related changes in anterior, posterior, and total corneal astigmatism. J Refract Surg. 2014 Mar;30(3):192-7

# CLARÉ®

## MONOFOCAL



- Hydrophilic IOL
- 4-loop design
- Single piece
- Aspheric
- Not preloaded

# TECHNICAL SPECIFICATIONS

|                                               |                                                                                                                       |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Lens type</b>                              | For implantation in the capsular bag                                                                                  |
| <b>Optic diameter</b>                         | 6.00 mm (from +10.0D to +24.5D)<br>5.70 mm (from +25.0D to +30.0D)                                                    |
| <b>Overall diameter</b>                       | 11.00 mm (from +10.0D to +14.5D)<br>10.75 mm (from +15.0D to +24.5D)<br>10.50 mm (from +25.0D to +30.0D)              |
| <b>Design</b>                                 | One-piece square edge on 360°                                                                                         |
| <b>Optic design</b>                           | Monofocal<br>Aspherical with negative spherical aberration to partly correct corneal spherical aberration<br>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<br>118.5 Interference laser biometry                                                        |
| <b>Suggested anterior chamber depth (ACD)</b> | 4.96 mm Ultrasound biometry<br>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                                                                                                         |



# CRISTAVISC c<sup>®</sup>



- Viscoelastic
- Cohesive with mannitol
- Average viscosity of 170Pa.s
- Manufactured by the Vivacy Laboratories



Distributed by Cristalens

# 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. 1 g                                                             |
| <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® Instructions for use for more information

# LOKI<sup>®</sup> PL



- Hydrophobic
- Monofocal
- Preloaded
- For veterinary use







# TECHNICAL SPECIFICATIONS

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

## LOKI® PL size chart

| Dog weight                               | < 9 kg  | Between 9 and 25 kg | > 25 kg |
|------------------------------------------|---------|---------------------|---------|
| Overall Diameter of the intraocular lens | 12 mm   | 13 mm               | 14 mm   |
| Intraocular lens reference               | LOKI 12 | LOKI 13             | LOKI 14 |





[www.cristalens-international.com](http://www.cristalens-international.com)

# Medicolle

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