# PRODUCT TECHNICAL SHEET

**Rev. 4.0** 

**Revision date:** 03.2021

# **MINI TORIC Ready**



# 1. Trade Name

MINI TORIC Ready is a kit composed by an acrylic aspherical intraocular lens (EC 0123) and a dedicated injection system (EC 0482).

MINI TORIC Ready Series Code: V7560CZ

Individual product code:

MINI TORIC READY: V7560CZPXXXLA (dioptric range +30.0D ÷ 0.0 D)

Where:

P = positive dioptric power

XXX = dioptric power between 00.00 and 30.00

L= cylindrical dioptric power

# 2. Manufacturer

# IOL: SIFI S.p.A.

Via Ercole Patti, 36

95025 - Aci S. Antonio (CT) - Italy

**INJECTOR:** Medicel AG

Dornierstrasse 11

CH-9423 Altenrhein - Switzerland

# 3.EC Marking

IOL: EC 0123 INJECTOR: EC 0482

# 4. Compliance

Legislative Decree 46/97 (Medical Device Directive 93/42/CEE)

EN ISO 13485:2016 Medical Devices, Quality Management Systems - Requirements for Regulatory Purposes UNI EN ISO 9001:2015 Quality System - Requirements

# 5. European Classification

IIb



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# 6. General Product Description

MINI TORIC READY is an intraocular monofocal toric lens to be implanted in the posterior chamber of the eye, specifically in the capsular bag, for the replacement of the human crystalline lens for the correction of surgical aphakia and pre-surgical corneal astigmatism in adult patients.

MINI TORIC READY is a preloaded single-piece intraocular lens for mini-incision. This medical-surgical device is made of a hydrophilic-hydrophobic copolymer with a chromophore that filters ultraviolet radiation and has a refractive index of 1.46 at 35°C. The anterior surface of the lens is aspheric, the posterior surface is toric and is designed to compensate pre-surgical astigmatism. The posterior surface has a double square edge which is intended to reduce the incidence of posterior capsule opacification.

MINI TORIC READY has a biconvex optical shape across the whole dioptric range.

This surgical medical device is a system consisting of an intraocular lens and a disposable injector pursuant to Directive 93/42 EC.

### Physical characteristics:

1 hysical characteristics:					
	Water content	25%			
	Refraction index	at 35°C (in hydrated status)	1.46		

Range of spherical dioptric powers:

and the state of t						
Lens model	Min.	Max.	Incremental Step (D)	Incremental step (D)		
	Power	Power				
	(D)	(D)				
MINI TORIC	0.0	+30.0	0.5 from +10.5 to +	1.0 from 0.0 to+10.0		
READY			30.0			

Range of cylindrical dioptric powers on IOL optical plane:

Range of cylinarical aloparte powers on 102 optical plane.					
Lens model	Power	Power	Incremental step		
	Min. (D)	Max. (D)	(D)		
MINI TORIC	+1.5	+4.5	0.5		
READY					

#### Correlation Table

COTTONION INOTE			
Cylindrical dioptric	Cylindrical dioptric		
power (D) on IOL	power (D) on		
optical plane	corneal plane*		
1.5	1		
2	1.3		
2.5	1.7		
3	2		
3.5	2.3		
4	2.7		
4.5	3		

<sup>\*</sup>The cylinder values at the corneal plane shown in the table have been calculated based on the average pseudophakic eye.



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Technical characteristics:						
Lens model	Diameter of the optical plate (mm) $\emptyset_P$	Total diameter (mm) $O_T$	N° of loops	Vaulting		
MINI TORIC READY	6.0	10.75	4	5°		

Lens model, spherical and cylindric dioptric power, spherical equivalent, suggested A constant and main dimensions (diameter of the optical plate, total diameter, angulation of the loops) are reported on the box and on the primary and secondary packaging.

# 7. Composition/Device Material/Technical Characteristics

MINI TORIC READY intraocular lens models are made of a hydrophilic – hydrophobic copolymer constituted by 2-HEMA (2-hydroxyethyl methacrylate) and EOEMA (2-ethoxyethyl methacrylate) with a chromophore that filters ultraviolet radiation and a refractive index 1.46 at 35°C.

Component 2-HEMA is a hydrophilic monomer, while component EOEMA is a hydrophobic monomer. The two combined monomers form an acrylic polymer that compared to the individual monomers has a higher refractive index and better mechanical properties.

Furthermore, the polymer is ultrapure, i.e. without any residual acid, with zero ionicity thus excluding any possibility that the lens might become opaque due to calcium deposits.

### 8. Indications

The MINI TORIC READY intraocular lenses are intended for primary implantation for visual correction of aphakia and pre-existing corneal astigmatism in adults after removal of a cataractous lens who desire increased spectacle independence for distance. These implants must be positioned within the capsular bag; its placement in this natural slot allows the IOL to function as a refractive medium.

#### 9. Instructions for use

- 1. Appropriate implant selection
  - a. Examine the label of the complete package to verify the model, dioptric power or spherical equivalent, design and date of expiration of the product.
  - b. Suggested constant A: the constant A on the package is intended as a guideline and starting point for calculating the dioptric power of the implant. We suggest that surgeons should develop the constant value based on their clinical experience.
- 2. Removing the implant from its package
  - a. After opening the case, check that the information on it corresponds to that listed on the label in the lens package.
  - b. Open the lens external package and transfer the lens container in the sterile field in accordance with good practices in sterile field management.
  - c. Open the injector blister and place it on the sterile operating table.
  - d. Carefully open the lens container and remove the loading chamber in which it is lodged.
  - e. Insert the loading chamber holding the IOL into the specific injector slot.
  - f. Apply viscoelastic solution first through the front hole until the tip is filled and then through the rear hole towards the back of the chamber until the solution comes out, in order to obtain a barrier between lens and silicone cushion.
  - g. In addition, apply a drop of viscoelastic solution on the tip of the silicone cushion. It is recommended to use the SIFI viscoelastic solution, in order to allow the correct lens injection procedure.
  - h. Carefully remove the loading chamber block by lifting it from below with thumb finger and holding the upper part with index and middle fingers. Check that the lens is located at the centre of the loading chamber. Close the cartridge sides together until the "click-lock" mechanism engages.



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i. Push forward the plunger softly and ensure that the silicone cushion correctly enters the loading chamber. Continue to push the plunger bringing the lens toward the tip of the injector. In the event the lens-injector system gets jammed, stop using the device.

#### 3. Lens Injection

- a. Introduce the injector tip into the tunnel, with the sloping side facing down and inject the intraocular lens into the bag.
- b. After the injection, pull out the injector from the incision.

  Attention: When the loading chamber is introduced into the injector, the plunger should be in the pulled-back position. The injector tip must be handled with care, especially during insertion of the loading charge into the injector. It must not be damaged in order not to jeopardise the injection operation.

### 4. Positioning of the MINI TORIC READY lens

a. Rotate the lens within the capsular bag and place the indicators in correspondence with the axis of the astigmatism to be corrected. The indicators identify the lower power meridian forming an imaginary line that represents the axis of the positive cylinder; the IOL higher power meridian is located at 90° compared to the axis of the indicators. The marks on the axis of the cylinder of the MINI TORIC READY lens must appear to be aligned with the corneal meridian to be corrected.

IMPORTANT. Before surgery, it is recommended that the eye to be operated should be marked by using a sclerocorneal marker while the patient is sitting. The marked points identify the reference axis (which may be 90° or 180°, as determined by the surgeon) to determine the refractive axis to be corrected in order to position the lens into the capsular bag. It is also recommended that you should consult the instructions provided by the Toric Calculator available on the website www.minitoriccalculator.com to determine the optimal positioning axis and the correct dioptric power.

Once the lens has been inserted into the capsular bag, carefully align the indicators of the MINI TORIC READY intraocular lens with the astigmatism axis to be corrected. An incorrect alignment of the axis of the lens compared to the required positioning axis may compromise the corrective power. This incorrect alignment may derive from a keratometry or from an inaccurate marking of the cornea; from the incorrect positioning of the axis of the intraocular lens during surgery; from an unexpected surgically-induced alteration of the cornea; or from a physical rotation of the lens itself after the implant.

#### 10. Sterilisation

The intraocular lens package consists of a double-barrier steam-sterilized assembly; the injector and the blister in which it is lodged are sterilized with ethylene oxide.

Steam sterilisation is compliant with standard UNI EN ISO 17665-1.

# 11. Packaging

MINI TORIC READY lenses are supplied in a hydrated state. The package consists of a double-barrier sterile assembly.

The primary package of the intraocular lens consists of a plastic container sealed with an aluminum sheet in which there is a specific loading chamber where the intraocular lens is lodged. The plastic container is filled with sterile, pyrogen-free saline solution. The plastic container is in turn enclosed in a package.

The primary package of the injector is a blister sealed with tyvek. The case representing the SKU contains the lens and its injector, the "Product Information" leaflet, the implant card and the labels with the lens ID information.

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# 12. Warnings

- Patients with one or more of the following conditions are not eligible candidates for implantation of a monofocal toric intraocular lens, as it can worsen the pre-existing condition, interfere with diagnosis or the treatment of a condition or potentially be a risk for the patient's sight:
  - zonular laxity
  - irregularity and decentration of capsulorhexis
  - recurrent inflammation of anterior or posterior segment of unknown etiology (chronic uveitis)
  - patients in whom the intraocular lens might interfere with the ability to observe, diagnose or treat posterior segment conditions
  - intraoperative challenges which could increase the risk of complications, such as severe bleeding, significant iris damage, uncontrollable elevated intraocular pressure or significant vitreous loss
  - lack of capsular support for implantation of the intraocular lens in the capsular bag
  - decompensated glaucoma
  - dystrophy of corneal endothelium
  - proliferative diabetic retinopathy
  - microphtalmus j)
  - pediatric patients k)
  - suspected microbial infection
  - patients without an adequate support for the lens from the posterior chamber or the zonule
  - bilateral congenital cataracts
  - history of retinal detachment or susceptibility to this condition
  - monocular patients
- MINI TORIC READY IOLs must be positioned within the capsular bag and not in the ciliary sulcus.
- MINI TORIC READY IOLs are indicated for the correction of pre-existing corneal astigmatism in the range recommended in the table.
- The rotation of MINI TORIC READY IOLs far from their selected axis can reduce astigmatism correction. Misalignment greater than 30° can increase post-operative refractive cylinder. If necessary, lens repositioning should be performed as soon as possible before lens encapsulation.
- Carefully remove all viscoelastic material from the capsular bag.
- Any residual viscoelastic material can allow the lens to rotate causing misalignment of the lens with the intended axis of placement.
- Other potential complications following IOL implantation are correlated to cataract surgery.

#### 13. Precautions for use

- The recent use of contact lenses affects the patient's refraction; therefore, in those wearing contact lenses, surgeons must define corneal stability without contact lenses before determining the power of the intraocular lens.
- 2. Do not re-sterilise the intraocular lens.
- 3. Do not reuse the intraocular lens; reuse compromises the sterility of the implant.
- 4. Do not use the system if the package is damaged or open.
- Do not use after the expiration date printed on the package.
- Do not use balanced saline solutions, Ringer lactate and/or hydroxypropyl methylcellulose during the loading procedures of the lens into the injector.
- Improper handling of the preloaded system, as well as improper bending techniques may cause damage to the haptics and / or the optical part of the lens. The surgeon must not attempt to implant lenses with a damaged optical plane or haptics. For a correct handling of the medical device follow the instructions for use being provided.
- The intraocular lens implant requires adequate surgical skills.
- Opening the protective packaging requires immediate use of the intraocular lens to prevent contamination or dehydration.
- 10. The MINI TORIC READY intraocular lenses must be kept at room temperature. It is recommended to implant them after keeping them at least 60 minutes at the temperature of the operating room. In this way



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it is possible to avoid that the thermal shock, resulting from an abrupt exposure to body temperature, causes a transient loss of transparency of the device.

11. MINI TORIC READY must be implanted exclusively with the injector Accuject Pro 1.8-1P included in the package (Incision size: Wound-assisted technique: 1.8 mm; Into-the-wound technique: 2.0 mm; Intothe-bag technique: 2.2 mm).

#### 14. Adverse events

The potential adverse events that may occur during or after cataract surgery with implantation of an intraocular lens may include but are not limited to:

### General adverse events for intraocular lenses

- 1. Residual refractive error
- 2. Increase of intraocular pressure
- 3. Corneal oedema
- 4. Inflammation (Endophthalmitis, Ipopion, Cystoid macular oedema)
- 5. Pupillary block
- 6. Retinal detachment
- 7. Displacement of the intraocular lens (Tilt and decentralisation)
- 8. Secondary surgical intervention (including repositioning of the implant, removal and replacement, PCO, or other surgical procedure)
- 9. Any other adverse event that leads to permanent damage to eyesight or requires surgery or a doctor to avoid this epilogue.

# Adverse events for MINI TORIC READY intraocular lens

1. Rotation of the positioning axis of the toric intraocular lens

### 15. Safety Information

MINI TORIC READY intraocular lenses do not contain latex or phthalates.

# 16. Compatibility with other products

There are no interactions between the intraocular lens and other devices or therapies.

# 17. Validity

4 years.

### 18. Storage and Handling Conditions

Store at room temperature.

If the lenses are exposed to temperatures other than those shown in the case, it is recommended to stabilize them at the operating room temperature at least 60 minutes before the implant.

#### 19. Disposal

No special precautions are required for disposal.

### END OF DOCUMENT

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