



---

## MEDICONTUR E-IFU

---

---

Confidentiality Statement

This document contains confidential information, and as such may not be disclosed to 3<sup>rd</sup> party without the permission of Mediontur Ltd.  
All rights reserved.

# MEDICONTUR “FLEX” INTRAOCULAR LENSES

EN

## DESCRIPTION

Consists of one, single piece, sterile, foldable acrylic intraocular lens (IOL) with UV-absorbent. Yellow IOLs have a blue-light filtering chromophore covalently bonded to the material (see Graph 1). These models are marked with ‘Y’ in the product code. Different models are controlled individually for their optical and mechanical properties.

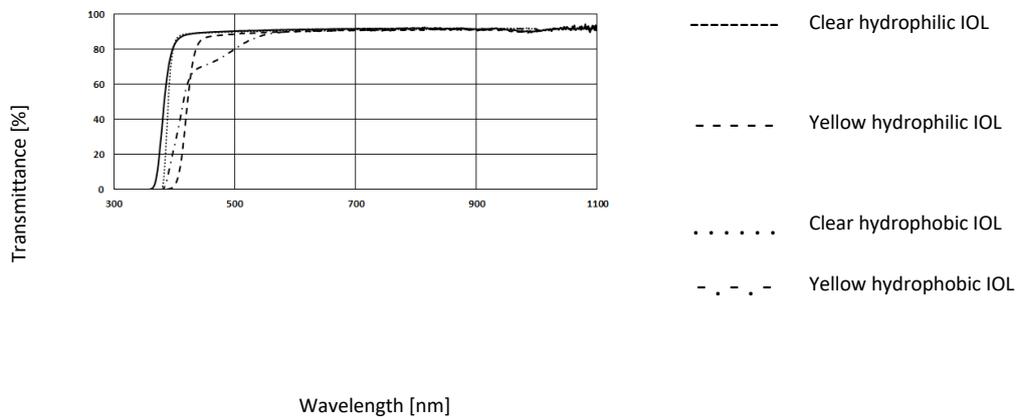
### EXTENDEND DESCRIPTION - TORIC MODELS

In case of monotoric lenses the toric surface is on the posterior side, whereas in case of bitoric lenses both sides are toric.

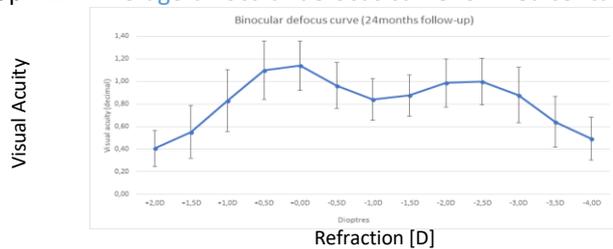
### EXTENDEND DESCRIPTION - MULTIFOCAL MODELS

The anterior surface is the apodized, diffractive side of the lens. The added power for near vision is indicated on the label. For the defocus curves see Graph 2.

Graph 1: Average spectral transmittance of Medicontur IOLs



Graph 2: Average binocular defocus curve for Medicontur's Multifocal IOLs (with +3.5 D Addition)



## MONOFOCAL MODELS

Code	Brand	Material	Design
677AB	Bi-Flex	hydrophilic	monofocal
677ABY	Bi-Flex	hydrophilic	monofocal
690AB	Z-Flex	hydrophilic	monofocal
690ABY	Z-Flex	hydrophilic	monofocal
640AB	Q-Flex	hydrophilic	monofocal
640ABY	Q-Flex	hydrophilic	monofocal
877FAB	Bi-Flex	hydrophobic	monofocal

Confidentiality Statement

This document contains confidential information, and as such may not be disclosed to 3rd party without the permission of Medicontur Ltd. All rights reserved.

877FABY	Bi-Flex	hydrophobic	monofocal
860FAB	Z-Flex	hydrophobic	monofocal
860FABY	Z-Flex	hydrophobic	monofocal

## TORIC MODELS

Code	Brand	Material	Design
677TA	Bi-Flex T	hydrophilic	monotoric
677TAY	Bi-Flex T	hydrophilic	monotoric
690TA	Z-Flex T	hydrophilic	monotoric
690TAY	Z-Flex T	hydrophilic	monotoric
677TB	Bi-Flex T	hydrophilic	bitoric
677TBY	Bi-Flex T	hydrophilic	bitoric
690TB	Z-Flex T	hydrophilic	bitoric
690TBY	Z-Flex T	hydrophilic	bitoric

## MULTIFOCAL MODELS

Code	Brand	Material	Design
677M	Bi-Flex M	hydrophilic	multifocal
677MY	Bi-Flex M	hydrophilic	multifocal
690M	Z-Flex M	hydrophilic	multifocal
690MY	Z-Flex M	hydrophilic	multifocal
640M	Q-Flex M	hydrophilic	multifocal
640MY	Q-Flex M	hydrophilic	multifocal

## MULTIFOCAL TORIC MODELS

Code	Brand	Material	Design
677MT	Bi-Flex MT	hydrophilic	multifocal monotoric
677MTY	Bi-Flex MT	hydrophilic	multifocal monotoric
690MT	Z-Flex MT	hydrophilic	multifocal monotoric
690MTY	Z-Flex MT	hydrophilic	multifocal monotoric

## PACKAGING

Hydrophilic lenses are supplied steam sterilized in a vial or plastic vessel filled with sterile water. Hydrophobic lenses are supplied dry, packaged in a plastic lens case, sterilized by ethylene oxide. The containers are protected by blister or peel-pouch.

## EXPIRATION DATE

Medicontur IOLs are sterile unless their primary packaging is damaged. The expiry date is printed on the labels of the outer packaging and the protective blister or peel-pouch. Do not use an IOL after its expiry date.

## INDICATIONS

Correction of aphakia after surgical cataract extraction in adult patients. Medicontur "FLEX" IOLs are intended for replacement of the human crystalline lens in the capsular bag, in the posterior chamber of the eye.

## EXTENDED INDICATIONS - TORIC MODELS

- Toric IOLs are recommended for patients who aspire to have improved uncorrected distance vision and reduction of residual refractive cylinder.
- Toric design Medicontur IOL models are implanted in astigmatic eyes.

## EXTENDED INDICATIONS - MULTIFOCAL MODELS

- Multifocal IOLs are recommended for patients who aspire to have near, intermediate and distance vision with increased spectacle independence.
- Multifocal design MediContur IOL models are implanted in presbyopic eyes regardless of whether there is cataract or not.

## PRECAUTIONS

Careful preoperative evaluation and clinical judgement should be made by the surgeon to decide the risk/benefit ratio of the implantation in the following (non-exhaustive) pre-existing conditions:

- Choroidal hemorrhage
- Significant vitreous loss
- Extremely shallow anterior chamber
- Posterior capsular rupture
- Severe corneal dystrophy
- Severe optic nerve atrophy
- Zonular separation
- Color vision deficiencies
- Uncontrolled glaucoma
- Chronic uveitis
- Diabetic retinopathy
- Retinal detachment
- Recurrent anterior or posterior segment inflammation of unknown etiology
- Clinically significant macular/RPE changes

## CONTRAINDICATIONS

Apart from non-specific contraindications related to any form of ocular surgery, the following non-exhaustive list must be respected:

### CONTRAINDICATIONS

### - TORIC MODELS

- In case of patients who underwent previous refractive treatment – for example any kind of keratoplasty – the indication should be determined very carefully.

### CONTRAINDICATIONS

### - MULTIFOCAL MODELS

- Individuals who drive at night for a living or whose occupation or hobbies depend on good night vision
- Individuals who need very good near vision in semidarkness
- Individuals who are professional or non-professional pilots
- Keratoconus
- Age-related Macular Degeneration
- Monocular patients
- Any eye disease in which postoperative visual acuity is not expected to be better than 0.5 (e.g. amblyopia, nystagmus, retinitis pigmentosa, aniridia, exentric pupil)

## COMPLICATIONS

As with any surgical procedure, there is risk involved. The following non-exhaustive list specifies the complications that have been associated with the implantation of IOLs:

- Corneal damage or edema

- Cystoid macular edema
- Secondary glaucoma
- Pupillary block
- Uveitis
- Iris trauma
- Intraocular infection
- IOL replacement or extraction
- Hemorrhage
- Damage to the zonules or to the capsule with consequential IOL dislocation
- Posterior capsule opacification (PCO)
- Postoperative opacification/calcification of the IOL
- Endophthalmitis
- Asthenopic discomfort, adaption difficulties
- Reduced contrast sensitivity
- Reduced vision at night or in poor visibility conditions
- Perception of halos or radial lines around point sources of light
- Dissatisfactory visual outcome due to incorrect IOL refraction

#### **WARNINGS**

- Examine the package labels carefully for information about the lens model, power and expiration date. Lenses should not be used after the expiration date.
- Do not resterilize or reuse the lens by any method.
- Do not use the IOL if the packaging is damaged or wet and lens sterility may have been compromised.
- Store the unopened IOL box in a dry place, away from moisture and direct sunlight at room temperature (15-35°C).
- Do not use hydrophilic IOLs if there is no fluid in the lens container.
- The storage fluid must not be used.
- A temporary opaqueness of the lens may occur in case of a considerable change of temperature. This phenomenon does not damage the lens material and the lens reverts to transparency after some time.
- A high level of surgical skills is required to implant intraocular lenses. The surgeon should have observed and/or assisted at numerous implantations and successfully completed one or more courses on IOL implantation before attempting to implant intraocular lenses.
- IOLs should be handled carefully to avoid damage to the lens optics or haptics. Non-toothed, polished instruments should be used, without grasping the optical area with forceps.
- Patients should be advised that unexpected outcomes may necessitate additional surgical intervention.
- For optimal results, aim to achieve perfect IOL centration.
- The product or its waste material should be disposed of in accordance with local/national regulations and requirements.

#### **WARNINGS**

#### **- TORIC MODELS**

- Prior to surgery mark the operative eye with at least two reference points or use an operating microscope that provides an axis guide.

- For optimal results, the surgeon must ensure the correct placement and orientation of the lens within the capsular bag. The posterior surface of the IOL is marked with 2 linear indentations at the optic-haptic junctions that identify the flat meridian of the IOL. The cylinder axis marks should be aligned with the post-incision steep corneal meridian.
- Carefully remove all viscoelastic material from both sides of the lens. Residual viscoelastic material may cause complications including lens rotation resulting in the misalignment of the IOL, which compromises astigmatic correction.

## WARNINGS

## MULTIFOCAL MODELS

- Manage patient selection and operative technique carefully to ensure that the total postoperative corneal astigmatism does not exceed 1.5 diopters. Patients with pupil size less than 2.5 mm may not obtain any near vision benefit.
- Some patients may experience reduced contrast sensitivity as compared to monofocal IOLs.
- Some patients may experience visual effects with the Multifocal IOLs because of the superpositioning of focused and unfocused images. Visual effects may include the perception of halos or radial lines around point light sources under low illumination conditions.
- Patients should be advised that unexpected outcomes could lead to continued spectacle dependence.

## LIABILITY

Medicontur does not bear any responsibility for improper model selection by the physician, for improper handling, use, surgical technique applied or for any other iatrogenic error caused by the implanting surgeon.

## PREOPERATIVE CALCULATION OF IOL POWER

IOL power should be determined preoperatively based on proper biometry data using the formulae available in the literature. The A-constant value specified on the outer label is presented as a guideline. It is advised that surgeons personalize the constants they use based on their surgical techniques, equipment and post-operative results. For Toric IOLs, the use of a computerized/web-based toric calculator is highly recommended to ensure the best optical outcome. For further information please refer to <http://toriccalculator.net> or <http://www.medicontur.com>. For Multifocal lenses target emmetropia.

## DIRECTIONS FOR USE

1. Open the outer package to remove the protective peel-pouch or blister pack and verify that the IOL container information is consistent with the outer package labeling (e.g. power, model, SN).
2. Open the protective peel-pouch or blister and remove the lens container from the packaging in a sterile environment.
  - Hydrophilic lenses: Hold the vial or vessel vertically. Carefully open the cap and remove the lens holder from the fluid.
  - Hydrophobic lenses: Open and remove the container cap to expose the lens.
3. Transfer the lens, using sterile equipment to an appropriate loading device. Rinse the IOL with sterile Balanced Salt Solution. For loading and injection of the lens follow the Instructions for Use of the injector.
4. Various surgical procedures can be utilized. The surgeon should select a technique that is appropriate for the patient.

5. Hydrophilic IOLs should not be kept in open air for longer than 1 minute. Neither type of IOL should be in folded condition for longer than 3 minutes. If these time limits have been exceeded the lens should be discarded.

### PATIENT CARD

One of the self-adhesive labels with the IOL data printed on it is designed to be placed on the Patient Card, also enclosed in the packaging. This Patient Card should be handed over to the patient for future reference allowing the patient to identify the surgeon and the type of IOL implanted.

### SYMBOLS

 CE certified 0120	 Keep dry	 Do not re-use
 Keep away from sunlight	 Consult instructions for use	 Do not re-sterilize
 Serial number	 Use by date	 Store at room temperature
 Do not use if package is damaged	 Manufacturer	 Do not freeze
 Sterilized using steam or dry heat	 Sterilized using ethylene oxide	

### MANUFACTURER

Medicontur Medical Engineering Ltd.  
Herceghalmi Road, H-2072  
Zsámbék, HUNGARY  
Phone: +36 23 56 55 55  
Fax: +36 23 56 55 56

Please report any adverse event or complaint to Medicontur's Quality Assurance at [QA@medicontur.hu](mailto:QA@medicontur.hu).

**LAST UPDATE:** July 2018

This document is executed in the English language. In the event of any inconsistencies, the English version shall prevail.