

A young man with curly hair, shirtless and wearing blue shorts, is surfing a large, curling wave. He is looking back over his right shoulder towards the camera. The water is a vibrant turquoise color, and the scene is captured from a low angle, emphasizing the height and power of the wave.

EYECRYL™ PHAKIC

IOL RANGE

**UNLEASH THE  
INDEPENDENCE**

biotech

VISION CARE

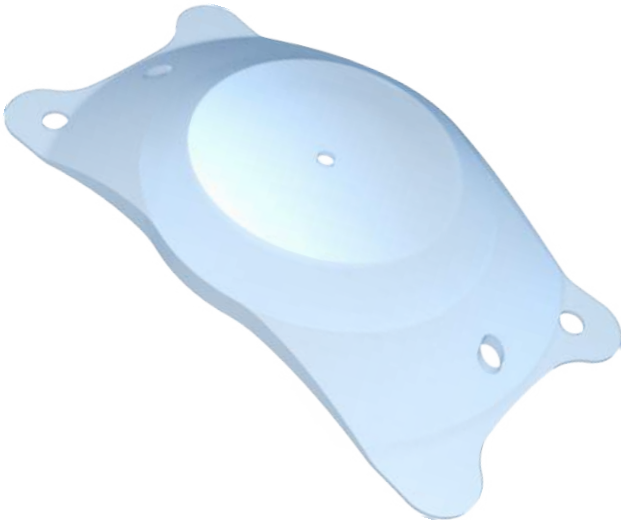
# EYECRYL<sup>TM</sup> PHAKIC

IOLs Range



EYECRYL PHAKIC TORIC IOL

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EYECRYL PHAKIC IOL

The word "Phakic" describes the state of the eye that still has its natural (crystalline) IOL intact.

**EYECRYL PHAKIC** range of IOLs are posterior chamber phakic IOLs, manufactured from hydrophilic material having aspheric optic with Zero Spherical Aberration. **EYECRYL PHAKIC** range of IOLs are indicated in Phakic adults for the correction or reduction of Refractive error (Myopia / Hyperopia) with or without astigmatism. The eye's natural IOL is not removed, so patient can retain their pre-existing ability to focus objects at various distances.

**EYECRYL PHAKIC** range of IOLs provide clearer & sharper vision by making your patient's life more joyful. Patients can experience great enhancement in vision immediately after the implantation of **EYECRYL PHAKIC** range of IOLs. The ease of implantation and the post-operative stability makes it stand out in the segment of Phakic IOLs.

## Indications

- Patients having stable Myopic / Hyperopic refractive error
  - LASIK / PRK rejects, high Myopia / Hyperopia, thin Cornea, dry eye etc.
  - Stabilized central Keratoconus
  - **EYECRYL PHAKIC TORIC** IOLs are indicated in Phakic adults for the correction or reduction of Refractive error (Myopia / Hyperopia) with astigmatism.
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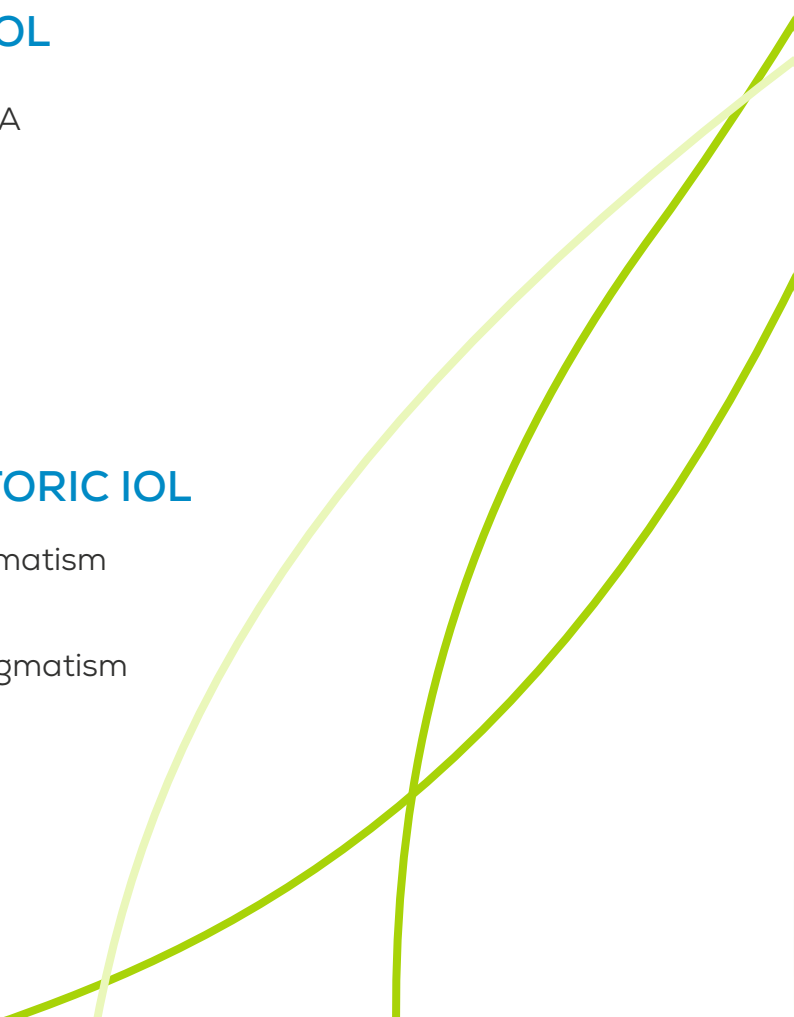
## Contra-indications

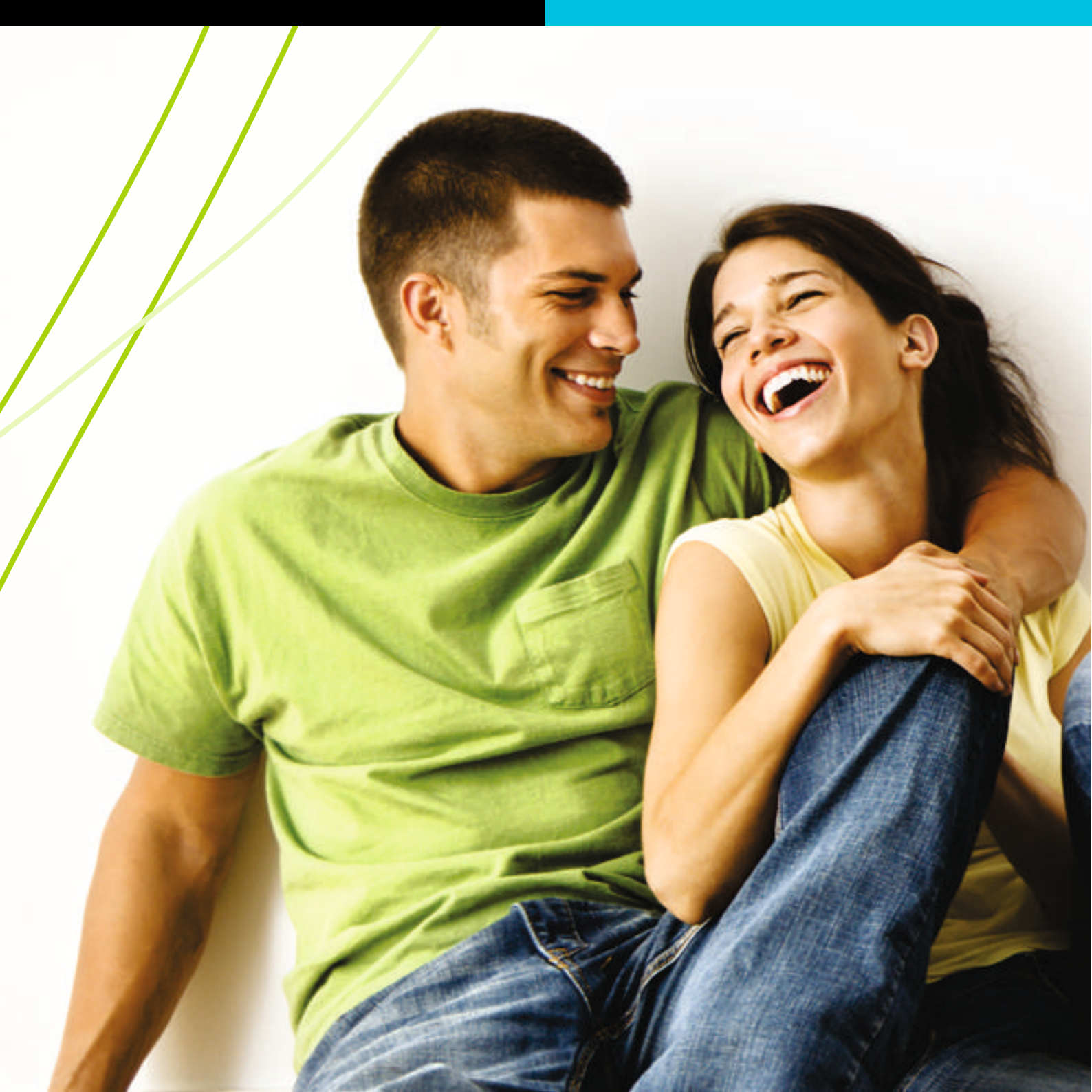
- ACD < 2.8 mm (from Endothelium)
- Progressive refractive error
- Corneal / Endothelial pathology
- Retinal pathology
- Glaucoma
- Narrow AC angle
- Uveitis
- Cataract or capsular opacification
- Progressive Keratoconus
- Other ocular pathologies
- Previous ocular surgeries
- Age < 21 years

## Advantages of EYECRYL PHAKIC IOL

- 64% of the eyes gain one or more lines in CDVA
- 94.7% patient satisfaction ratio
- Predictable, safe & effective outcomes
- Significant improvement in visual acuity
- Aspheric optic

## Advantages of EYECRYL PHAKIC TORIC IOL

- 92% of eyes within  $\pm 0.50$  D of refractive astigmatism
  - Excellent rotational stability
  - Effective reduction in subjective manifest astigmatism
  - Predictable, safe & effective outcomes
  - Aspheric optic
  - 100% SE predictability within  $\pm 1.00$  D
- 



## Features of EYECRYL PHAKIC IOL Range

- Proven Eyecryl Platform
- Central hole of 360 micron
- Precise Calculator, ensures predictability
- Holes at 6 & 12 O'clock positions, helps in aqueous fluid passage



## Increased patient comfort

As a part of innovative design, there is a hole in the center part of **EYECRYL PHAKIC** range of IOLs. The hole facilitates natural passage for Aqueous Humor. So, there is no increase in Intra-ocular pressure, which eliminates the requirement of YAG/Surgical Peripheral Iridectomy (PI). The optimized hole size does not affect the visual performance of IOL and smooth edges of hole reduce chances of occurrence of glare and halos. Thus, patient's comfort level is increased with reduction in surgery time.

## Thin corneas, not a problem

**EYECRYL PHAKIC** range of IOLs can be implanted in patients with thin corneas and dry eyes - which are contra-indications for LASER based procedures

## Reversible Procedure

Implantation of the **EYECRYL PHAKIC** range of IOLs is done without altering the shape of Cornea, keeping the structural integrity of the eye intact. **EYECRYL PHAKIC** range of IOLs can also be removed easily, if/when required.

## Excellent Positional Stability

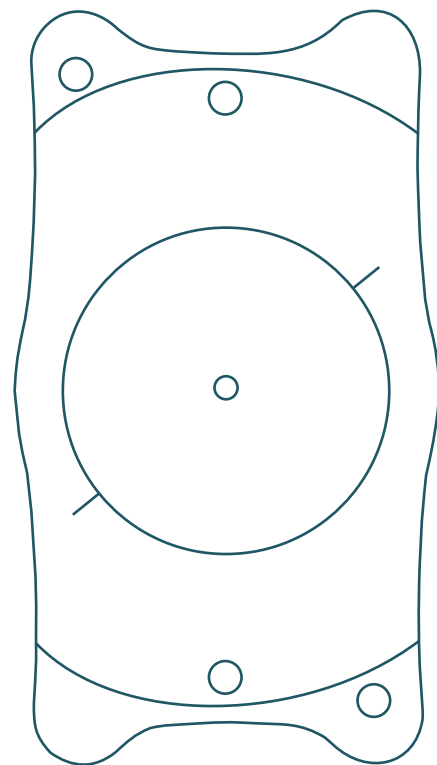
**EYECRYL PHAKIC** range of IOLs with orientation marks helps to implant the IOL behind the Iris in the right orientation. The distance of natural Crystalline Lens and Endothelium from IOL is optimum with precise white-to-white measurements & phakic calculator results.

# EYECRYL PHAKIC TORIC

Phakic Toric Hydrophilic Foldable Intraocular Lens

## SPECIFICATIONS

MATERIAL	Hydrophilic Acrylic CQ UV
OPTIC TYPE	Toric Aspheric
OPTIC SIZE	6.50 mm
EFFECTIVE OPTIC SIZE	4.65 mm to 5.50 mm
OVERALL SIZE	11.0 mm to 14.0 mm
REFRACTIVE INDEX	1.462
DIOPTRER RANGE	+8.0 D to -25.0 D ( with 0.5D step )
CYLINDER POWER RANGE	0.5D to 5.0D (in 0.5D step)
TORIC AXIS ON IOL OPTIC	0°, 30°, 60°, 90°, 120° & 150°
IMPLANTATION SITE	Posterior Chamber
STERILIZATION	Steam



Model	PC110T	PC115T	PC120T	PC125T	PC130T	PC135T	PC140T
Size (mm)	11.00 mm	11.50 mm	12.00 mm	12.50 mm	13.00 mm	13.50 mm	14.00 mm

\*PC110T, PC115T & PC140T for myopic correction and all models for hyperopic correction are available as customized lenses against confirmed order.

Scan For  
Surgery Video

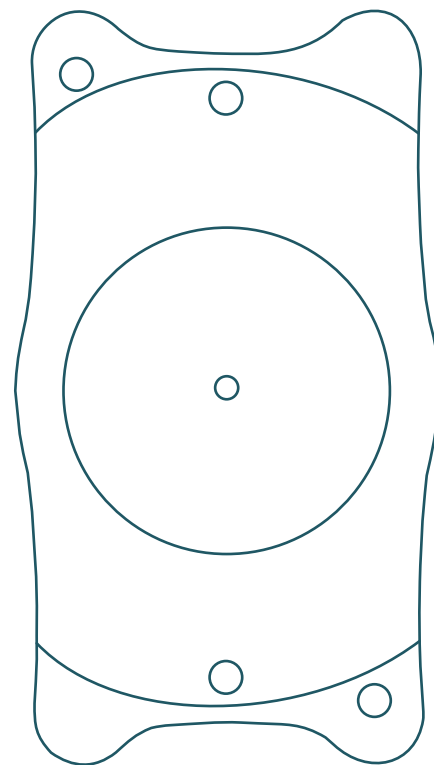


# EYECRYL PHAKIC

Phakic Aspheric Hydrophilic Foldable Intraocular lens

## SPECIFICATIONS

MATERIAL	Hydrophilic Acrylic CQ UV
OPTIC TYPE	Aspheric
OPTIC SIZE	6.50 mm
EFFECTIVE OPTIC SIZE	4.65 mm to 5.50 mm
OVERALL SIZE	11.0 mm to 14.0 mm
REFRACTIVE INDEX	1.462
DIOPTRER RANGE	+10.0 D to -25.0 D ( with 0.5D step )
IMPLANTATION SITE	Posterior Chamber
STERILIZATION	Steam



Model	PKC110NH	PKC115NH	PKC120NH	PKC125NH	PKC130NH	PKC135NH	PKC140NH
Size (mm)	11.00 mm	11.50 mm	12.00 mm	12.50 mm	13.00 mm	13.50 mm	14.00 mm

\*PKC110NH, PKC115NH & PKC140NH for myopic correction and all models for hyperopic correction are available as customized lenses against confirmed order.

Scan For  
Surgery Video

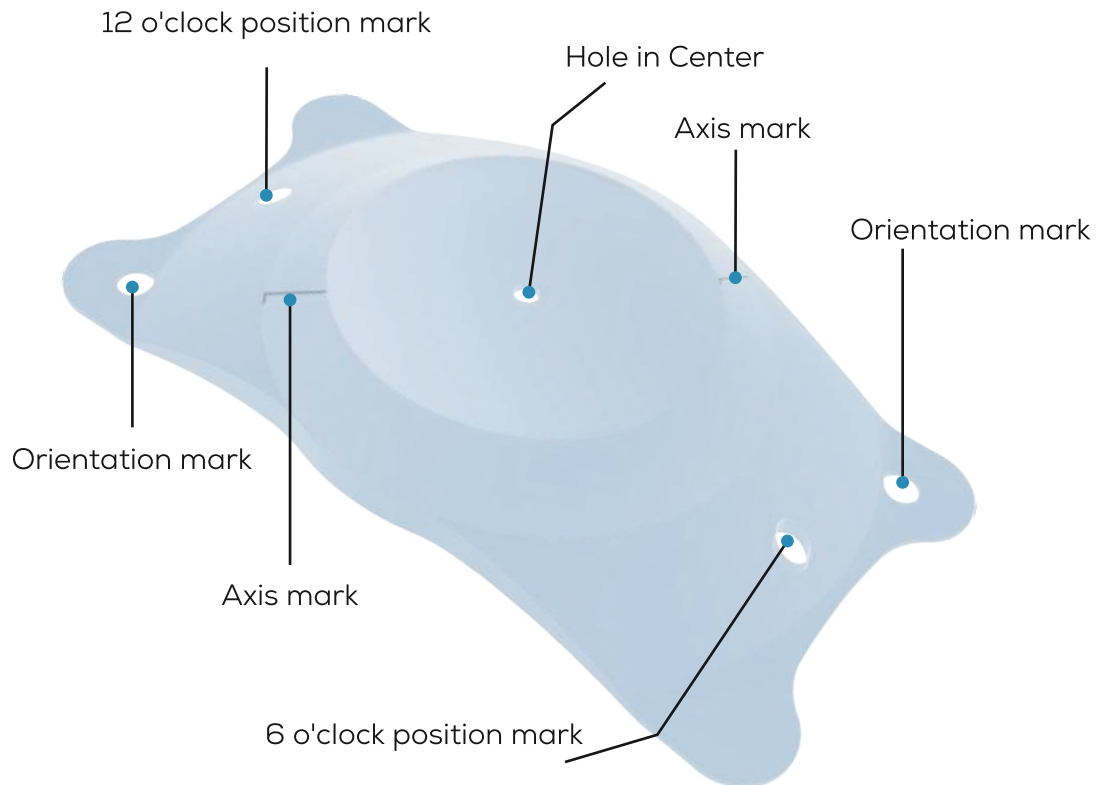


## Central & Peripheral Holes

- Eliminates need of PI
- Maintains normal aqueous flow
- Eliminates chance of Glaucoma
- Facilitates easy OVD removal

## Orientation Marks

- Two orientation marks are given on leading left & trailing right corners
- These marks clearly indicate unfolding of IOL in right manner inside the eye

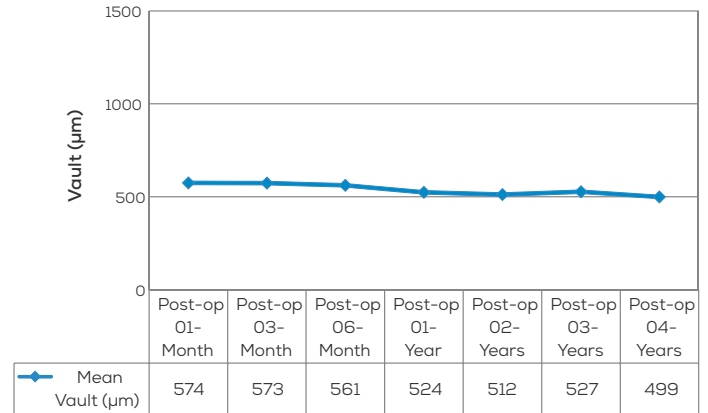




# Clinical Results for treatment of Myopia<sup>8</sup> (n=36)

## VAULT

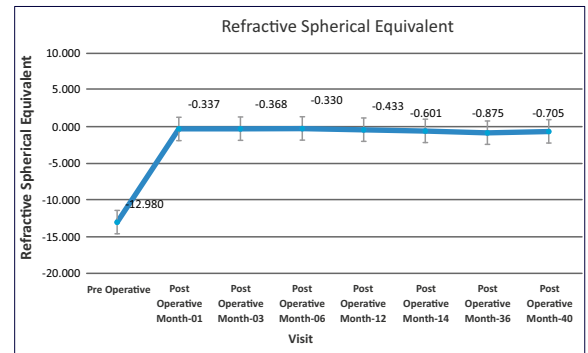
- Study report shows stable vault during the follow up and at the end of 4 years.



## Mean of Refractive Spherical Equivalent

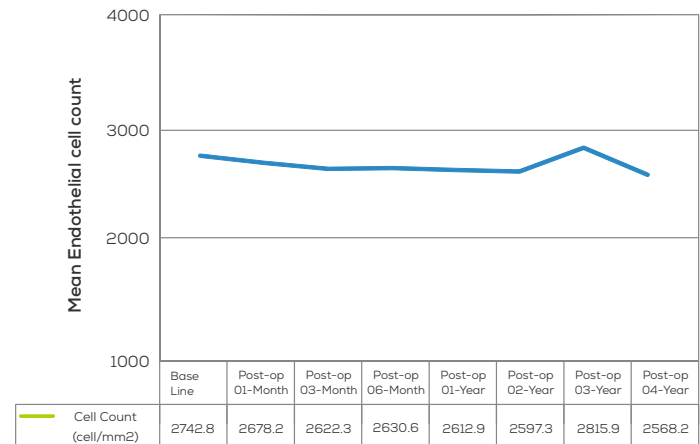
- Mean refractive spherical equivalent after 4 years of implantation shows excellent predictability and stability of the IOL in the eye along with the efficacy to treat wide range of Myopia.
- All patients are found within -0.25 D at post 4 years examination.

### Mean of Refractive Spherical Equivalent



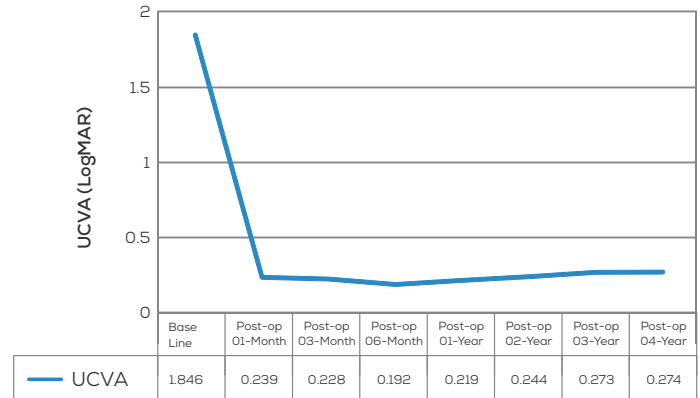
## Endothelial cell count

- The graph shows the stable Endothelial cell count for 4 years of clinical study.
- The Results show the implantation of the EYECRYL PHAKIC range of IOLs doesn't have remarkable impact on endothelial cell loss over the period of time.



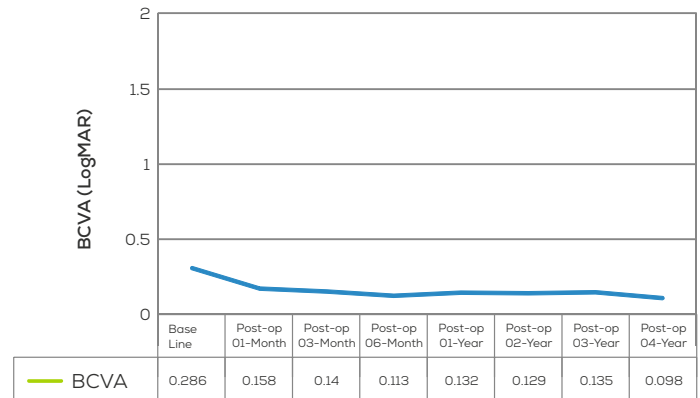
## Uncorrected Visual Acuity

- The results show good improvement in the uncorrected visual acuity after implantation of **EYECRYL PHAKIC** Range of IOLs.
- The graph also shows the stability of the uncorrected visual acuity over the period of time.
- All patients are found with uncorrected visual acuity within 0.275 LogMAR value at 4 years follow up.



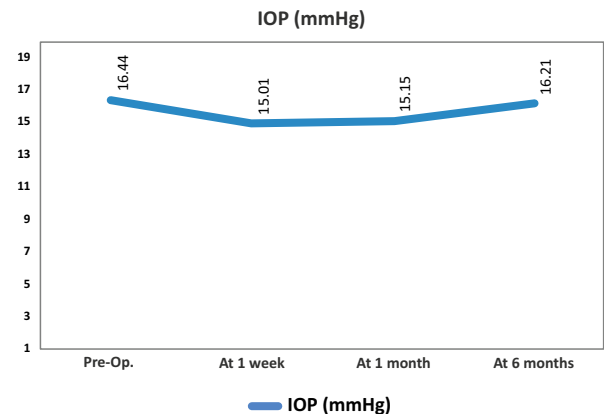
## Corrected Visual Acuity

- The results show clear improvement in the corrected visual acuity after implantation of **EYECRYL PHAKIC** range of IOLs.
- The corrected visual acuity is improved with time period of 4 years in the study.
- All patients are found with corrected visual acuity within 0.098 LogMAR value at 4 years examination.



## IOP<sup>2</sup>

- Post-operative IOP remains stable within normal range



# Clinical Results for treatment of Myopia with Astigmatism <sup>4</sup>(n=43)

## Rotational Stability

- EYECRYL PHAKIC TORIC IOL exhibits excellent rotational stability

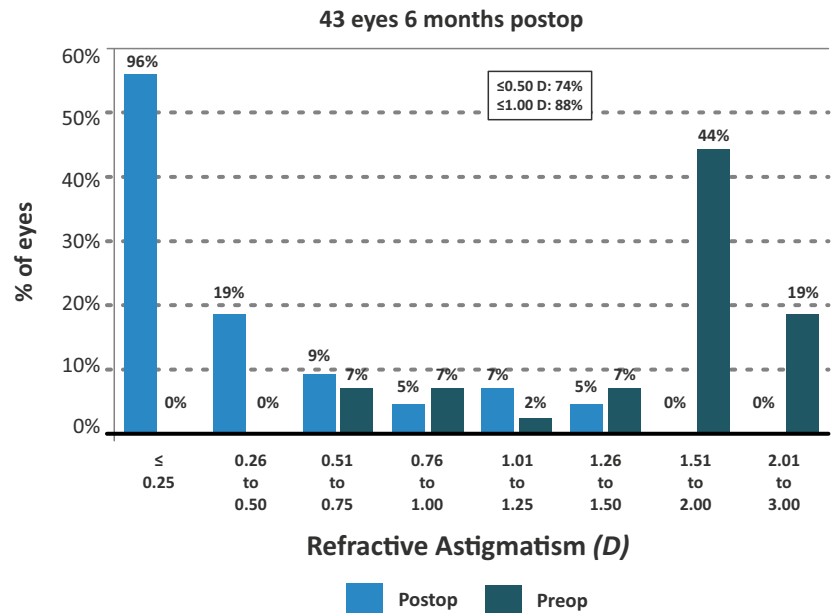
Absolute change in axis orientation between visits.

	Absolute Rotation	Lens Rotation $\leq 5^\circ$	Lens Rotation $\leq 10^\circ$
Visit Range	(mean $\pm$ SD)	n (%)	n (%)
1 Day to 3 Months	2.33 $\pm$ 3.80	40 (93.0)	40* (93.0)
3 to 6 Months	1.35 $\pm$ 1.67	41 (95.3)	43 (100.0)
1 Day to 6 Months	2.95 $\pm$ 3.75	40 (93.0)	40* (93.0)

n: number of eyes; SD: standard deviation. \*In three eyes, there was  $> 10^\circ$  lens rotation between 1-day and 1-month visits. In these eyes, the pIOLs rotated  $\leq 5^\circ$  during the rest of the follow-up.

## Refractive Astigmatism

With EYECRYL PHAKIC TORIC version, postoperative astigmatism was 0.50 D or less in 74% eyes and  $\leq 1.00$  D or less in 88 eyes





## Selection of Suitable Model & Diopter

- Simple & easy online calculator is available - [www.biotechcalculators.com](http://www.biotechcalculators.com)  
Also available in form of mobile application on Android & IOS platform
- Steps to follow:
  1. Register yourself for the first time
  2. Enter required pre-operative data of patient
  3. Select one suitable option from suggested 5 options depending upon requirement.

## EYECRYL PHAKIC CALCULATOR

Online **EYECRYL PHAKIC** Calculator gives recommendations for **EYECRYL PHAKIC IOL** model with dioptric power options, according to the pre-operative data. It also provides **EYECRYL PHAKIC TORIC** model recommendation, cylindrical power and intended axis of IOL placement in the eye.

[www.biotechcalculators.com](http://www.biotechcalculators.com)



## Steps for using EYECRYL PHAKIC Calculator

- Registration
- Confirmation for login detail (User ID and Password) will be mailed to registered mail ID
- Login with your ID, Password
- Selection of **EYECRYC PHAKIC**
- Enter patient's pre-operative data
- Choose appropriate **EYECRYC PHAKIC IOL** diopter / **EYECRYC PHAKIC TORIC IOL** diopter and cylinder
- Print the final output page
- User can check selected lens stock availability & place orders online

## Required data for Calculator

- Patient's Name
- Patient's Birthdate
- Patient ID number
- Surgery date
- Left Eye/Right Eye
- Flat K & Axis of Flat K
- Steep K & Axis of Steep K
- White to White Distance (mm)
- Anterior Chamber Depth (mm) from Endothelium
- Corneal Thickness (mm)
- Pre-operative Sphere (D)
- Pre-operative Cylinder (D) with Axis

## Calculation Result

- Recommended IOL Model with size
- Selected IOL Power options (Sphere and Cylinder)
- Expected Post-operative Refraction (Sphere and Cylinder)
- Instructions for rotational positioning of IOL (in case of [PHAKIC TORIC](#) version)

Note: [EYECRYL PHAKIC](#) calculator is neither intended to be used for final diagnosis nor as a substitute for surgeon expertise.

Calculation ID: 202240311

## Patient Details

Patient's Name:

Patient's ID:

Eye:

## Doctor Details

Doctor's Name:

Doctor's ID:

Date:

## Calculation Details

IOL Model Recommended:

IOL Model Size (in mm):

IOL Power Selected(in D):

Sphere:  Cylinder:  Axis:  Spherical Equivalent:

Expected PostOperative Sphere:

Sphere:  Cylinder:  Axis:  Material Code:

## Pre-Operative Data

K1:  @

K2:  @

Pre-Operative Sphere (in D):

Pre-Operative Cylinder (in D):  @

Any Previous Intervention:

Corneal Thickness (in mm):

Back Vertex Distance (in mm):

White to White Distance (in mm) (IOL Master 700):

Anterior Chamber Depth (in mm):

Endothelium Cell Count:



# Calculation result page



# EYECRYL PHAKIC TORIC

Phakic Toric Hydrophilic Foldable Intraocular Lens

Calculation ID: 202240311

## Patient Details

Patient's Name:

Patient's ID:

Eye:

## Doctor Details

Doctor's Name:

Doctor's ID:

Date:

## Calculation Details

IOL Model Recommended:

IOL Model Size (in mm):

IOL Power Selected(in D):

Sphere:  Cylinder:

Axis:  Spherical Equivalent:

Expected PostOperative Sphere:

Sphere:  Cylinder:

Axis:  Material Code:

## Pre-Operative Data

K1:  @

Corneal Thickness (in mm):

K2:  @

Back Vertex Distance (in mm):

Pre-Operative Sphere (in D):

White to White Distance (in mm) (IOL Master 700):

Pre-Operative Cylinder (in D):  @

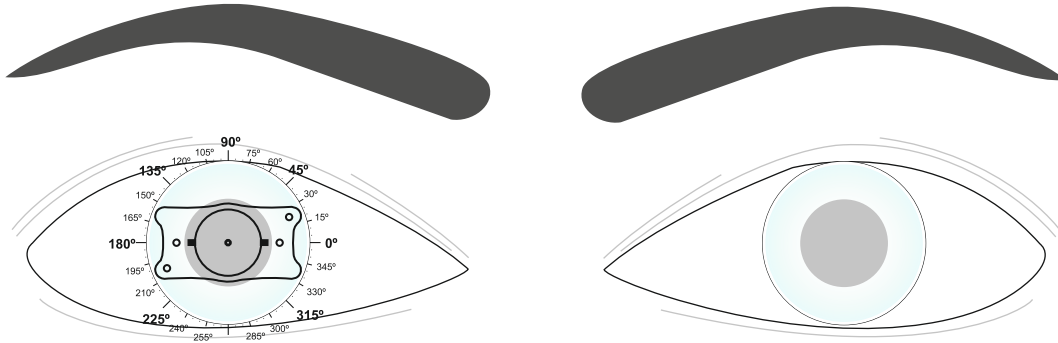
Anterior Chamber Depth (in mm):

Any Previous Intervention:

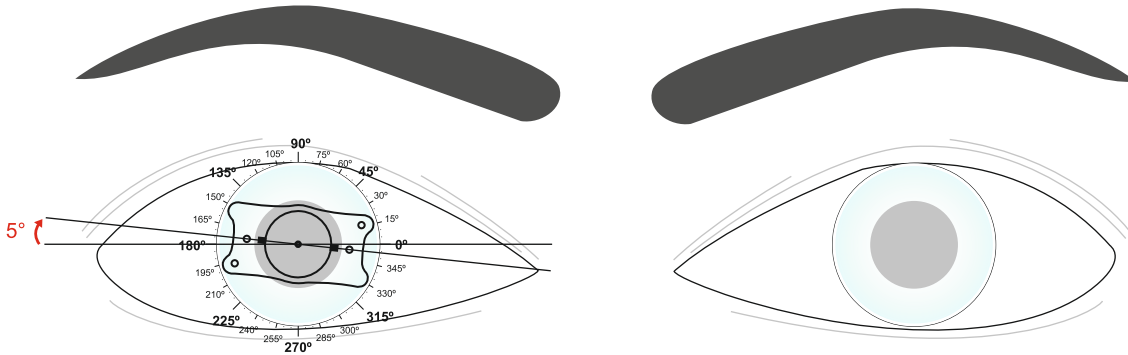
Endothelium Cell Count:

## Instructions for Rotational Positioning of Lens

**Step I:** Implant Lens Horizontally. At this time, the axis marks on lens optic are at  $90^\circ$



**Step II:** Now align toric axis marks on the lens optic with  $175^\circ$  pre-marked axis on the cornea.



Patient	Mr XYZ		
Eye	OD (Right)		
Lens Model	PC120T (12.0)		
	<b>Sphere</b>	<b>Cylinder</b>	<b>Axis</b>
Lens Label Data	-17 D	1.5 D	$0^\circ$
Lens Selected Data	-17 D	1.5 D	$175^\circ$
Expected Post-Operative Residual	-0.31 D	0.14 D	$175^\circ$
Rotation	5° Clockwise		



## Pre-operative measurements

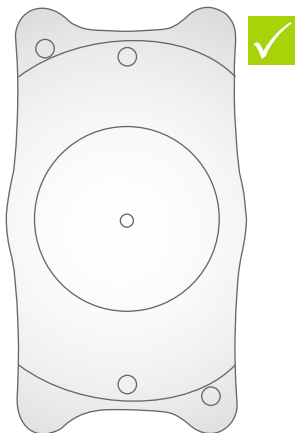
- Subjective refraction
- Endothelial Cell Density (ECD) measurement should be performed pre-operatively
- Sizing of the [EYECRYL PHAKIC](#) range of IOLs depends on measurement of white-to-white and Anterior Chamber Depth (ACD). So, these measurements must be precise to achieve predictable surgical outcomes
- Intra-ocular pressure (IOP) should be checked

## Loading Technique

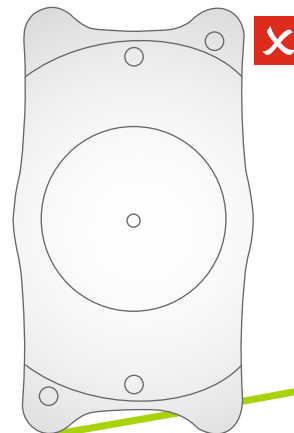
- Very easy & similar to hydrophilic / hydrophobic cataract IOL loading technique
- Great time saving
- Follow steps mentioned in "Instructions for Use" (given in IOL box), for loading & Implantation of [EYECRYL PHAKIC IOL RANGE](#)
- In addition to "Instructions for Use", please follow calculation result page, for axis placement of [EYECRYL PHAKIC TORIC IOL](#)

## Correct Position of Orientation Marks

Leading Left...  
Trailing Right...



Leading Right...  
Trailing Left...





## REFERENCE

1. Visual and Refractive Outcomes With the Eyecryl Phakic Toric IOL Versus the Visian Toric Implantable Collamer Lens: Results of a 2-Year Prospective Comparative Study *Journal of refractive surgery* • Vol. 37, No. 1, 2021
2. The Outcomes of Posterior-Chamber Phakic Intraocular Lens Implantation in Patients with High Myopia at Konyagöz Eye Hospital, Clinic of Ophthalmology, Konya, TURKEY / DOI: 10.5336/ophthal.2019-72386
3. PS1186\_Rev. 01\_09.08.21 (IFU) Combined IFU for Phakic & Phakic Toric\_English
4. Rotational Stability of a New Posterior Chamber Toric Phakic Intraocular Lens
5. Early results with the EYECRYL Phakic Toric intraocular lens implantation in keratoconus patients
6. R & D
7. Contralateral Posterior Chamber Phakic Intraocular Lens Implantation as Rehabilitation of Refractive Lens Exchange with a Monofocal Intraocular Lens in a Young, Nonpresbyopic, Bilateral Highly-Myopic Patient
8. The Retrospective Study to evaluate the efficacy, safety and refractive outcome of patient suffering from myopia and implanted with Phakic IOL\*



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