

Trifocal Hydrophobic IOLs



finevisionhp.bvimedical.com

The third generation of trifocal IOLs from our FINEVISION family, FINEVISION HP & HP TORIC reduce the need for spectacles by offering continuous vision at all distances¹, with the added benefits of GFY hydrophobic material.

Optimized Near Vision

Highest energy split allocated to near vision, thereby increasing the **quality** of patients' near vision without compromising distance.

With a **high add power of +3.5D**, FINEVISION can provide the **quality** and the **range of near vision** that will satisfy even the most demanding patients (35 - 40 cm).^{2,3}

Optimized Range of Vision

With two complementary add powers (3.5D and 1.75D), FINEVISION HP creates a smooth, balanced, and harmonized performance transition from distance to near. Whichever intermediate distance you are considering (66cm or 80cm), the VA performance is higher than 0.1 logMAR from -2.5D to -1.5D on the defocus curve.



○ FINEVISION Patient Outcomes (n=5,802 patients)¹

Complete Spectacle Independence Per Distance Tested 100% 80% 95% of patients reach 60% complete spectacle atients 99% 98% 95% independence at all distances. 40% 20% 0% Distance Intermediate Near

97% of patients would have FINEVISION surgery again.

The first and only optic to utilize CoPODize technology, combining both **Convolution** and **Apodization** concepts across the entire optic surface. This unique technology is optimized to work in harmony with the pupil - managing the risk of halo and glare when transitioning to mesopic conditions.



💭 Hydrophobic Raw Material (GFY Grade 0)^{6,7}

The IOL must withstand the test of time for the life of the patient. Glistenings have been a known phenomenon for hydrophobic IOLs, forming over time following implantation, which can impact the quality of vision.⁵ The GFY hydrophobic raw material, unique to BVI, is a Grade 0 based on the Miyata glistening scale (*in vitro*)^{6,7}





Hydrophobic raw material

50 Microvacuoles (MV)/mm² 40 No significant difference in 30 microvacuole formation was observed with the GFY material 44.05 20 compared to the hydrophilic reference material (in vitro).9 10 7.01 4.47 0 GEY Hydrophilic Hydrophobic material material



"One YAG has been made in the GFY IOL cohort after the third year (n = 43 eyes)."¹¹

GFY Material for Low PCO and YAG Rates

The GFY material matches the "No space, no cells" concept.¹⁰ This confirms that the perfect bio-adhesiveness of GFY provides a hard tackiness and bond to the capsular bag. The design of the GFY material integrates 2-Step Technology, featuring a square edge barrier and posterior haptic angulation. This technology offers a barrier against PCO.





Simulation of the accelerated ageing in vitro glistening formation⁸

The Winning Combination for Your Astigmatic Patients



Specifically Engineered for Toric IOL Stability

The POD platform features a unique double C-loop haptic configuration for excellent fixation within the capsular bag, with an increased contact angle^{14,15} as well as 4-point contact compared to conventional C-loop designs. This platform is designed to:

- Allow for even distribution of the compression forces at the hapticcapsular bag junction¹²
- Maintain low tilt and axial displacement¹²
- Provide excellent centration and rotation stability¹³



POD haptic platform has a Greater contact angle vs C-loop IOL platform^{14,15}

CLINICALLY PROVEN DESIGN

POD platform with

of experience with IOLs, providing reliability in terms of clinical outcomes¹⁶

CLINICALLY PROVEN ROTATIONAL STABILITY

From 1 hour to 3 months postoperatively

of average rotation¹⁷ with the PODEYE Toric lens



Our toric calculator has been developed to compensate the posterior corneal astigmatism effect by improving the prediction of postoperative astigmatic patient outcomes.¹⁸

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© "Easy control during the procedure"¹⁹

Rotation to align the IOL cylinder either clockwise OR counter-clockwise.²⁰

Easy placement is MANEUVERABILITY Whereas classic C-loop IOLs can only be rotated clockwise and require additional steps in case of misalignment.²⁰

Unique RidgeTech technology reduces the risk²¹ of sticky haptics on the optics during and after injection.



* toric.bvimedical.com is a forwarding address for www.physioltoric.eu



Medicel Accuject Injector Guidelines* with POD Platform

This fully single-use system represents reliable and effective lens injections with POD platform. The compact design with integrated cartridge enables predictable loading and positioning of the lens.

Guidelines steps with Accuject:



- 1. Apply ophthalmic viscoelastic device (OVD) into the tip and the loading chamber of the injector cartridge.
- 2. Remove the lens from the lens holder. Position the lens into the cartridge in such a way that the two haptics with the notches are pointing at 1 and 7 o'clock.
- 3. Exert slight pressure onto the lens optic and make sure that all haptics are inside before further closing the cartridge. Close the cartridge and check the position of the lens.
- 4. Once the "click-lock" mechanism engages, the lens is securely loaded and ready for injection.
- 5. Press the injector plunger forward and push the lens into the conical tip of the cartridge.
- 6. Pull the plunger back a few millimeters and then inject the lens in one continuous motion. For gentle implantation, it is not necessary to
 - fully push the plunger to the bottom of the cartridge.

*Please note that these are guidelines only. Surgeons are recommended advised to refer to the official Medicel Injector IFU, which is supplied with the device.

^{1.} Bilbao-Calabuig R et al. Visual outcomes following bilateral implantation of two diffractive trifocal intraocular lenses in 10,084 eyes, American Journal of Ophthalmology, July 2017. 2. Ang R. Long Term Clinical Outcomes of Hydrophilic and Hydrophobic Versions of a Trifocal IOL with the same optical design. Clinical Ophthalmology. 2023:17. | 3. Poyales F, Pérez R, López-Brea I, Zhou Y, Rico L, Garzón N. Comparison of Visual Performance and Patient Satisfaction Outcomes with Two Trifocal IOLs with Similar Optical Design but Different Materials. Clin Ophthalmol. 2020;14:3237-3247. | 4. MDR CER Report: RA_302_1_2021_144 Clinical Evaluation. | 5. DeHoog E, Doraiswamy A. Evaluation of the impact of light scatter from glistenings in pseudophakic eyes, J Cataract Refract Surg 2014; 40:95–103. | 6. Miyata A. Clinical and experimental observation of glistening in acrylic intraocular lenses. Jpn J Ophthalmol 2001, 45(6):564-569. | 7. CER F2 (MIC-GFY) | RD-REP-210-1-2021 | V1.0 | 27.04.2021. | 8. Biomaterial Optical Purity. The David J Apple International Laboratory for Ocular Pathology, 3 MAY 2017. | 9. Biomaterial Optical Purity Report & Appendix 1, G.U. Auffarth, University Hospital Heidelberg, May 2017. | 10. Linnola RJ. Sandwich theory:Bioactivitybased explanation for PCO. JCRS 1997;23:1539-42. | 11. Chassain C, Chamard C. Posterior capsule opacification, glistenings and visual outcomes: 3 years after implantation of a new hydrophobic. Journal Français d'Ophtalmologie 2018; 513-520. | 12. Bozukova D, Pagnoulle C, Jérôme C. Biomechanical and optical properties of 2 new hydrophobic platforms for intraocular lenses. J Cataract Refract Surg 2013 Sep;39(9):1404-14. | 13. Draschl P, Hirnschall N. Rotational stability of 2 intraocular lenses with an identical design and different materials. J Cataract Refract Surg 2017, 43(2):234-238. | 14. REP_503_1_2022_15.2 PODIGF Mechanical specifications. | 15. Borkenstein AF, Borkenstein EM. Geometry of Acrylic, Hydrophobic IOLs and Changes in Haptic-Capsular Bag Relationship According to Compression and Different Well Diameters: A Bench Study Using Computed Tomography. Ophthalmol Ther (2022) 11:711-727. | 16. Periodic Clinical Evaluation Report. | 17. Ang RET, Tañá-Rivero P, Pastor-Pascual F, Stodulka P, Tetz M, Fischinger I. Visual and Refractive Outcomes After Bilateral Implantation of a Biconvex Aspheric Toric Monofocal Intraocular with a Double C-Loop Haptic Design. Clinical Ophthalmology 2023:17 2765–2776. | 18. Abulafia A, Koch DD. A new regression formula for toric IOL calculations, J Cataract Refract Surg 2016; 42:663-671. | 19. Ang RET. "PODEYE Toric Clinical Outcomes." Presentation, BVI Advisory Board meeting, Boston 2024. | 20. Torio et al. Comparison of the Rotational Stability of Different Toric Intraocular Lens Implants. Philipp J Ophthalmol 2014;39:67-72. | 21. Physiol Report 002, 9 nov 2012. |



FINEVISION HP Description

Model	POD F GF							
Material	GFY Hydrophobic Acrylic ²²							
Overall diameter	11.40mm							
Optic diameter	6.00mm							
Optic	Biconvex Aspheric Trifocal							
Haptic design	POD (Double-C-loop) with Ridgetech & Posterior Angulated Haptic							
Filtration	UV & Blue Light							
Refractive index	1.53							
Abbe number	42							
Additional power (IOL plane)	+1.75D & +3.50D							
Injection system	Medicel Accuject 2.0 up to 24.5D - Medicel Accuject 2.1/2.2 up to 35D							
Spherical power	+10D to +35D (0.5D steps)							
		Interferometry						
	Hoffer Q: pACD	5.85						
Suggested	Holladay 1: Sf	2.06						
A constant ²⁰	Barrett: LF	2.09						
	SRK/T: A	119.40						
	Haigis: a0; a1; a2	1.70; 0 <mark>.4; 0.1</mark>						

22. GFY® is patented since 2010. Patent number: EP1830898. | 23. Values estimated only: surgeons are recommended to personalize their A-constant based on their surgical techniques and equipment, experience with the lens model and postoperative results.

FINEVISION HP Toric Description

Model	POD FT 49P									
Material	GFY Hydrophobic Acrylic ²²									
Overall diameter	11.40mm									
Optic diameter	6.00mm									
Optic	Biconvex Aspheric Toric Trifocal									
Haptic design	POD (Double-C-loop) with Ridgetech & Posterior Angulated Haptic									
Filtration	UV & Blue Light									
Refractive index	1.53									
Abbe number	42									
Additional power (IOL plane)	+1.75D & +3.50D									
Injection system	Medicel Accuject 2.1/2.2									
Spherical power		+10D to +35D (0.5D steps)								
Cylinder power (IOL plane) ²⁴	1.00 - 1.50 - 2.25 - 3.00 - 3.75 - 4.50 - 5.25 - 6.00D									
Suggested A					Int	erferometry				
constant ²³	Hoffer Q: pACD			5.85						
		Holla	day 1: Sf		2.06					
	Barrett: LF 2.09									
			SRK/T: A	119.40						
	Haigis: a0; a1; a2 1.70; 0.4; 0.1									
	POD FT 49P 1.0	POD FT 49P 1.5	POD FT 49P 2.2	25 POD FT 49P 3.0	POD FT 49P 3.75	POD FT 49P 4.5	POD FT 49P 5.25	POD FT 49P 6.0		
Cylinder power at IOL plane	1.00D	1.50D	2.25D	3.00D	3.75D	4.50D	5.25D	6.00D		
Cylinder power at corneal plane ²⁵	0.68D	1.03D	1.55D	2.06D	2.57D	3.08D	3.60D	4.11D		

22. GFY® is patented since 2010. Patent number: EP1830898. | 23. Values estimated only: surgeons are recommended to personalize their A-constant based on their surgical techniques and equipment, experience with the lens model and postoperative results. | 24. Please read the directions for Use for important safety information and consult our specialists on the spherical and cylinder powers availability. | 25. Savini G., J Cataract Refract Surg 2013; 39:1900–1903.

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