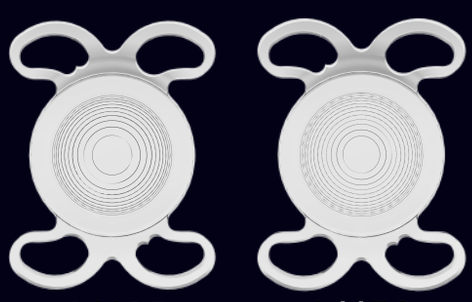
# Artis® PL M

## Affordable multifocality with a dual-lens strategy

### Multifocal hydrophobic preloaded intraocular lenses

- Presbyopia-correction within reach
- Personalised combinations for various visual needs
- Standard visual quality

**Mix & Match**
**Two addition profiles**



Add 2.5 Add 3.0

PRELOADED

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CRISTALENS

# SMART DESIGN FOR **MULTIFOCAL BENEFITS**

The ARTIS PL M multifocal intraocular lenses (IOLs) combine advanced optical engineering with a patient-centred approach to vision restoration. They offer a good-quality, entry-level solution for presbyopia correction, delivering reliable visual performance during cataract and refractive surgeries.

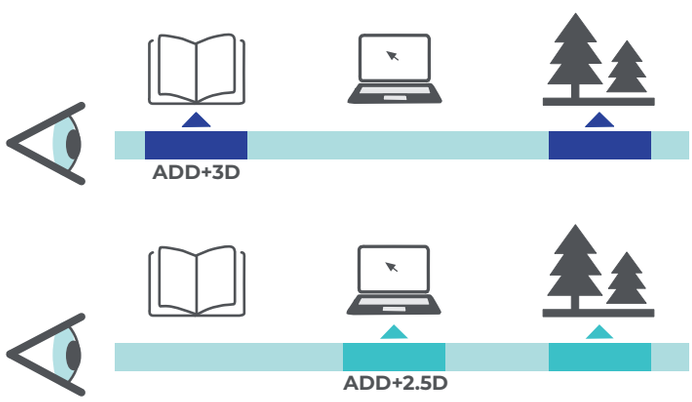
Leveraging the eye's natural pupil dynamics, the apodized diffractive optics of these hydrophobic IOL models work in harmony to restore clear vision across multiple distances. The result is a smooth, comfortable visual experience tailored to diverse patient lifestyles.[1,2]

## Two Distinct Addition Profiles

ARTIS PL M IOLs are available in two addition profiles, offering personalised multifocal solutions (Figure 1):

- **+3.0 D Addition**: Designed for **46 cm near vision**, making it ideal for reading and fine-detail activities.[3]
- **+2.5 D Addition**: Optimized for **56 cm intermediate vision**, perfect for tasks like computer work or casual interactions.[3]

Figure 1 **Principle of using binocularity to achieve the depth of field presented in figure 2**




## Balanced Light Distribution

The carefully calibrated 0.5 D difference enhances stereopsis, delivering smooth and comfortable vision from intermediate to near distances. Unlike trifocal IOLs, the ARTIS PL M ensures similar energy allocation between intermediate and near focal points while maintaining uncompromised distance clarity.[3]

- +3.0 D Model: Allocates 60% to distance and 40% to near vision at a 3 mm aperture.[3]
- +2.5 D Model: Balances 55% for distance and 45% for intermediate vision at a 3 mm aperture.[3]

# PERSONALISED COMBINATIONS FOR LIFESTYLE NEEDS

Thanks to the two addition profiles, ARTIS PL M lenses enable tailored solutions to suit diverse visual preferences (Figure 2).

- +3.0 D / +3.0 D combination: Prioritizes near vision for reading enthusiasts or detailed work.
- +2.5 D / +2.5 D combination: Perfect for those focusing on intermediate activities like screen use.

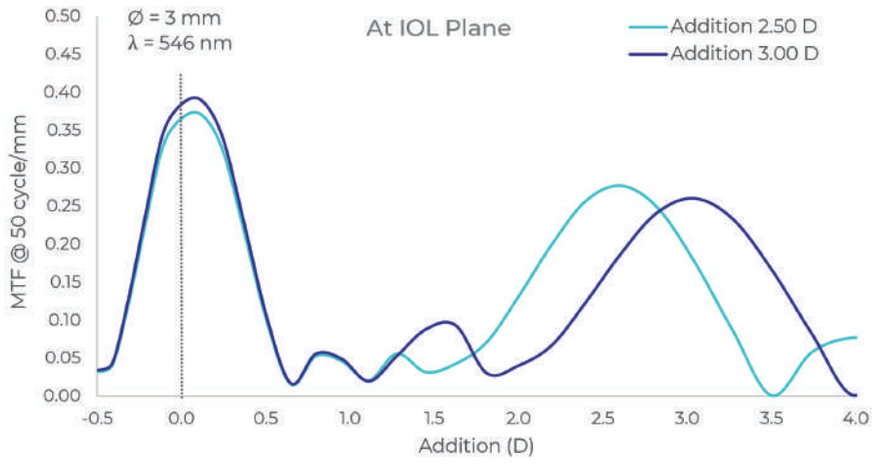
The two models are not just standalone solutions—they are designed to work together seamlessly. By combining the +2.5 D and +3.0 D models in a mix-and-match approach, patients benefit from an expanded depth of field, achieving smooth visual transitions between 60 cm and 40 cm.[4] This complementary feature is particularly effective for those who require versatility in both intermediate and near vision.

- +2.5 D / +3.0 D Mix-and-Match: Unlocks a symbiotic balance, offering a wider focal range and expanded depth from 40 cm to 60 cm.[1]

## A Vision Restoration System

ARTIS PL M multifocal IOLs go beyond standalone lenses — they represent a complete vision restoration system. By leveraging the synergy of dual models, patients can enjoy personalised, uninterrupted vision tailored to their unique needs and lifestyles.[1,3]

Figure 2 **Modulation transfer function of +3D and +2.5D IOLS according to the defocus at IOL plane** [3]




"I have observed seamless continuity between intermediate and near vision in my patients, without compromising distance vision. The excellent contrast sensitivity and enhanced binocular complementarity further contribute to outstanding visual outcomes.
I was particularly impressed by the four-loop haptic design, which ensures precise centration, and by the high-transparency hydrophobic acrylic material, which enhances optical clarity. Additionally, as a surgeon, I appreciate its ease of placement and handling, thanks to its advanced features.
Postoperative follow-ups have consistently shown high patient satisfaction. For these reasons, it has become my preferred choice for treating cataracts and presbyopia, especially in demanding patients."

**Andrés Germán Alza, M.D.**
Private Eye Clinic Dr. Enrique Alza
Argentina

# BALANCED VISION

The visual outcomes highlight the unique optical designs of the two ARTIS PL M models (Figure 3A). Together, they deliver balanced binocular performance, ensuring optimal visual comfort across distances (Figure 3B).[4]

**A**

| Monocular | UDVA | UIVA | UNVA |
|---|---|---|---|
| +3.0D | 0.12±0.13 | 0.30±0.15 | 0.27±0.22 |
| +2.5D | 0.08±0.09 | 0.22±0.15 | 0.32±0.22 |

**B**

| Binocular | UDVA | UIVA | UNVA |
|---|---|---|---|
| +3.0D/+3.0D | -0.03±0.09 | 0.23±0.05 | 0.12±0.10 |
| +3.0D / +2.5D | 0.03±0.09 | 0.16±0.23 | 0.23±0.20 |

Figure 3 **Uncorreted monocular and binocular visual acuities after Artis PLM implantation. Values are expressed as mean ± SD on the logMAR chart. (UDVA,UIVA,UNVA: uncorrected distance,intermediate and near visual acuity).**

**Dr. Shevchyk Vasyl**
Director, Shevchyk Vasyl Eye Microsurgery
Ukraine

"As a surgeon who has tried many IOLs, I can say: ARTIS MULTIFOCAL PL M is love at first implantation. The lens is perfect for those who want to see the world in its natural colors — artists, surgeons, photographers. The absence of yellow or purple filters ensures color accuracy.
Four haptic elements provide perfect stability in the capsular bag — no folds, just comfortable vision. The lens material minimizes halos at night and reduces the risk of secondary cataracts. As one patient said: "After this lens, even the stars at night look clearer!"
When performing surgery on ophthalmologists, ARTIS MULTIFOCAL PL M is always my first choice — colleagues know why. This lens is ideal for the most demanding patients who want only the best."

**Note:**
Achieving optimal visual outcomes requires careful patient selection, accurate IOL calculation, and precise refractive correction.

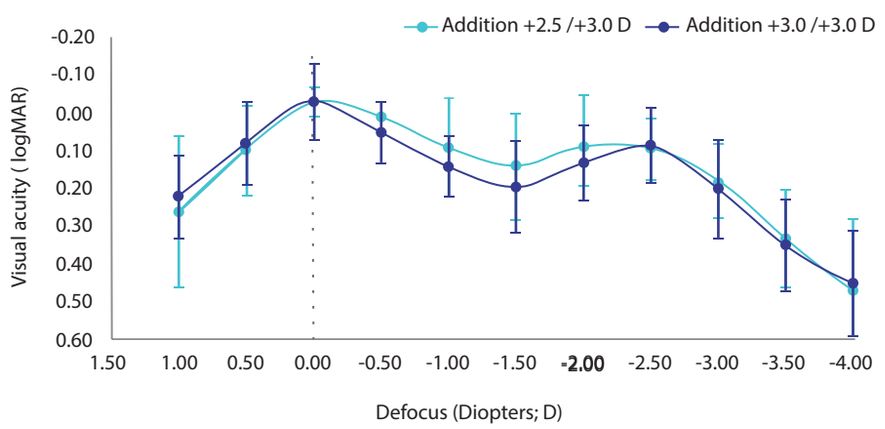



Figure 4 **Binocular defocus curve (with the best distance correction) in photopic condition for a +3D/+3D group (dark blue) and a +2.5D/+3D group (light blue).**

Groups were aged (69.6±9.9 years for the +3D/+3D group and 72.7± for the +3D/+2.5D group)[1]

Defocus curves confirm the multifocal performance of ARTIS PL M lenses, demonstrating improved intermediate vision with the mix-and-match approach compared to bilateral identical additions (Figure 4).[1]
Both strategies provide a full range of vision, with a 3.0 D defocus range achieving visual acuity above 0.20 logMAR.[1]

# EVERYDAY COMFORT

ARTIS PL M lenses make daily activities effortless and comfortable, regardless of viewing distance (Figure 5)[1]. While the bilateral +3.0 D addition is ideal for close-up tasks, the mix-and-match approach offers greater versatility, making it better suited for patients with active lifestyles.

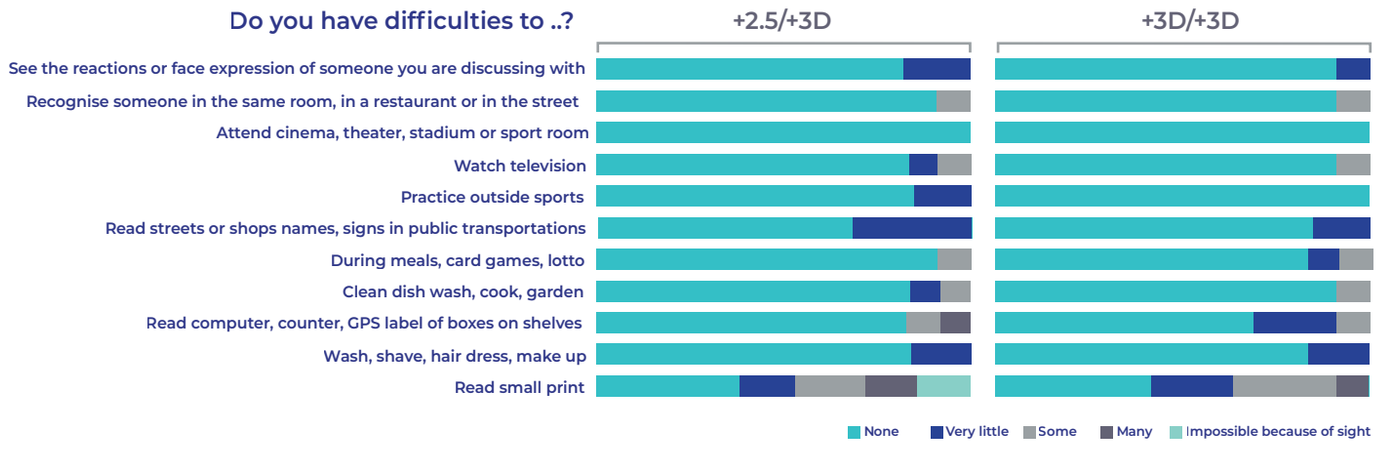



**Figure 5** **Stack histogram of patients' subjective scoring of their everyday life activities after bilateral implantation of ARTIS PL M.**

Whether bilateral implantation involves two lenses with the same addition or a mix of different additions, patients can enjoy good-contrast vision (Figure 6).[1]

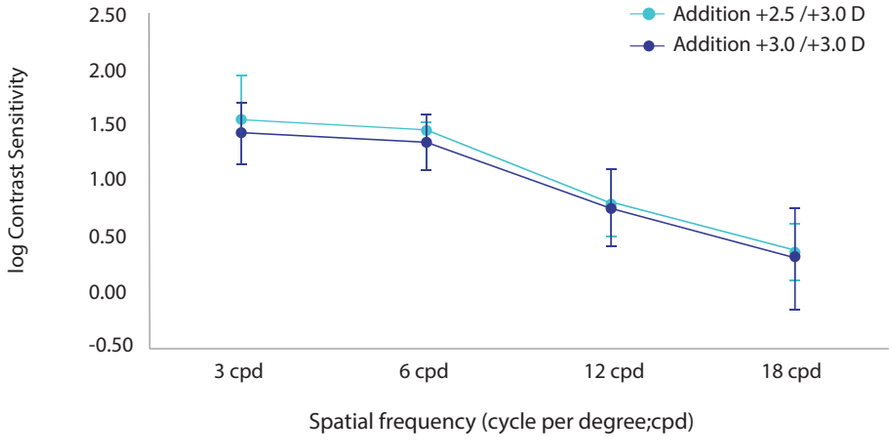



**Figure 6** **Contrast sensitivity in distance-corrected binocular vision under photopic condition after implantation of ARTIS PL M** (Interim outcomes of multicentric study conducted in France, Promotor Cristalens Industrie).

"The photic phenomena were very minimal and disappeared quickly at most one month after the surgical procedure. In addition, thanks to the Mix & Match technique the visual results were excellent with good distance, intermediate and near vision. The patients were therefore independent of glasses.

Finally, after 7 years of follow-up I have never had to do a Yag laser capsulotomy, none of my patients had presented secondary capsular opacification which demonstrates the good tolerance of this implant. It was a very promising experience in terms of efficiency, reliability and safety."

**Prof. Monia Cheour Amri**
Head of Ophthalmology Department,
Habib Thameur Hospital
Tunisia

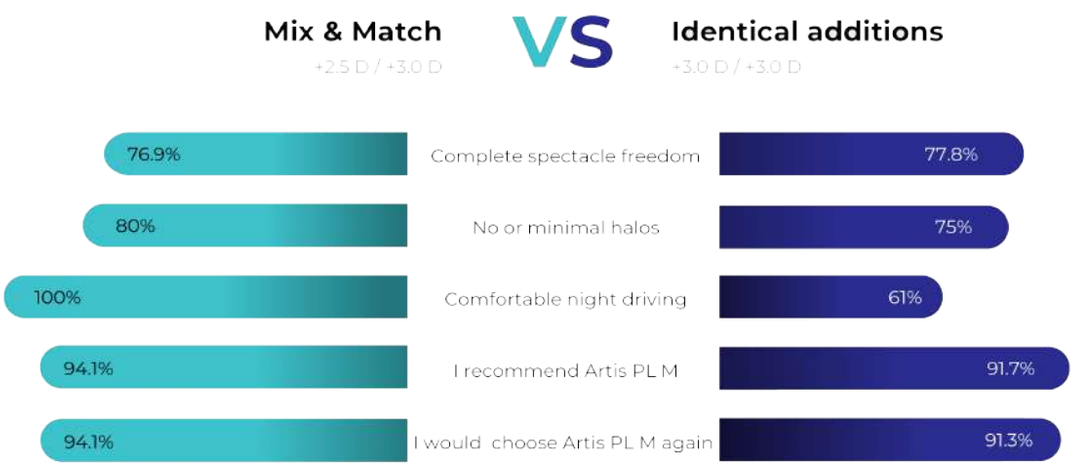
# MEETING PATIENT EXPECTATIONS

**Dr. Hoang Trung Kien**
President of the Professional Council, Saigon Medical Group
Vietnam

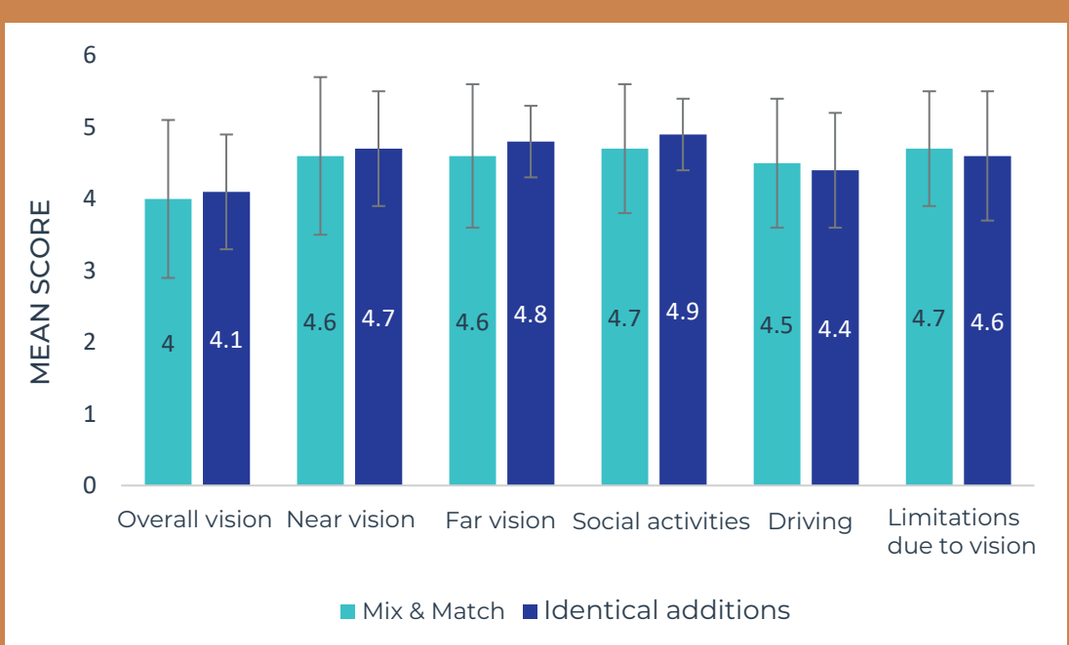
"The Artis PL M is an ideal choice due to its innovative 4-haptic intraocular lens design, hydrophobic material, and square-edge structure. These features effectively prevent posterior capsular opacification and ensure stable placement in the capsular bag.

With regular monthly use, the Artis PL M lens consistently meets a wide range of visual needs, delivering outstanding results. Its exceptional performance has made it a trusted and reliable option among premium intraocular lenses."

## Patient feedback highlights satisfaction with essential aspects of presbyopia correction, including spectacle independence, high visual quality, and the fulfilment of expectations.[1,2]




Patients consistently report high levels of satisfaction when rating their vision on a scale from 1 to 5, with 1 representing the worst score and 5 the best.[2]



# Artis® PL M

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Lens type** | For implantation in the capsular bag |
| **Optic diameter** | 6.00 mm (from +10.0D to +25.0D)<br>5.80 mm (from +25.5D to +35.0D) |
| **Overall diameter** | 10.79 mm (from +10.0D to +25.0D)<br>10.50 mm (from +25.5D to +35.0D) |
| **Design** | One-piece square edge on 360° |
| **Optic design** | Bifocal<br>Aspherical with negative spherical aberration to partly correct corneal spherical aberration<br>Diffractive pattern on the anterior face, biconvex |
| **Angulation** | 5° |
| **Material** | Hydrophobic CBK 1.8 from Cristalens |
| **Dioptric powers** | From +10.0D to +35.0D by 0.5D |
| **Additions (at IOL plane)** | +2.50D / + 3.00D |
| **Estimated A-Constant (SRK-T)** | 119.3 Ultrasound biometry<br>119.7 Interference laser biometry |
| **Suggested anterior chamber depth (ACD)** | 5.77 mm Ultrasound biometry<br>6.03 mm Interference laser biometry |
| **Refractive index** | 1.54 |
| **Sterilization** | Ethylene oxide |
| **Injection system** | Preloaded system |
| **Recommended incision size** | 2.0 mm |

## BIBLIOGRAPHY


**1.** Chéour M, Gharbi Z, Brour J, Ouederni M. Long-Term Clinical Outcomes of Mix-and-match implantation of multifocal IOLs after cataract surgery. Presented during the 40th congress of the Society of Tunisian Ophthalmology (STO) from 2nd to 4th March 2023 in Tunis, Tunisia.

**2.** Trinh DL. Non-interventional observational study of patients implanted with the multifocal preloaded hydrophobic acrylic intraocular lens Artis PL M for cataract treatment. Clinical Investigation Report, 2016_Artis PL M_V3_Jul 2024.

**3.** Courtesy of Cristalens Industrie, Lannion, France. Data on file.

**4.** Le Guyadier F and Raffray T. Depth of focus in the intermediate-near range induced by synergistic dissymmetrical addition IOLs for cataract surgery. Presented as an E-poster during the congress of the Asia-Pacific Academy of Ophthalmology (APAO). Abstract Refernce ID:20092.

**5.** Weston K, Nicholson R, Bunce C et al. An 8-year retrospective study of cataract surgery and post-operative endophthalmitis: injectable intraocular lenses may reduce the incidence of postoperative endophthalmitis. Br J Ophthalmol. 2015 Oct;99(10):1377-80.

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Ref: BROCHURE_EXPORT_1014_EN - v3.0- Edition: 26/06/2025