OPHTHALMO Pro GmbH

Products for ophthalmic surgery

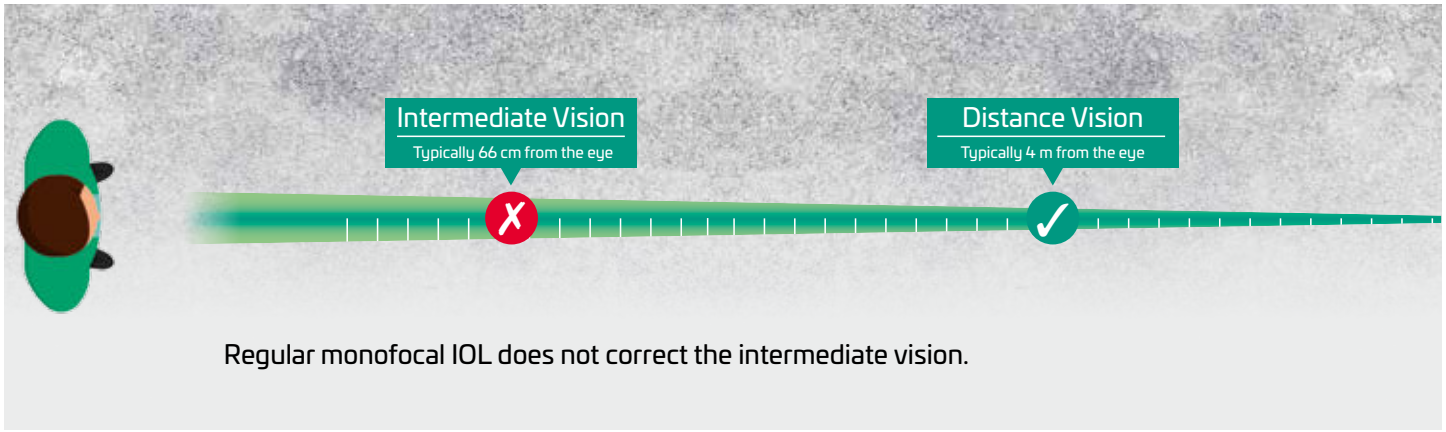
zoe®

zone **o**perating **e**nhancement

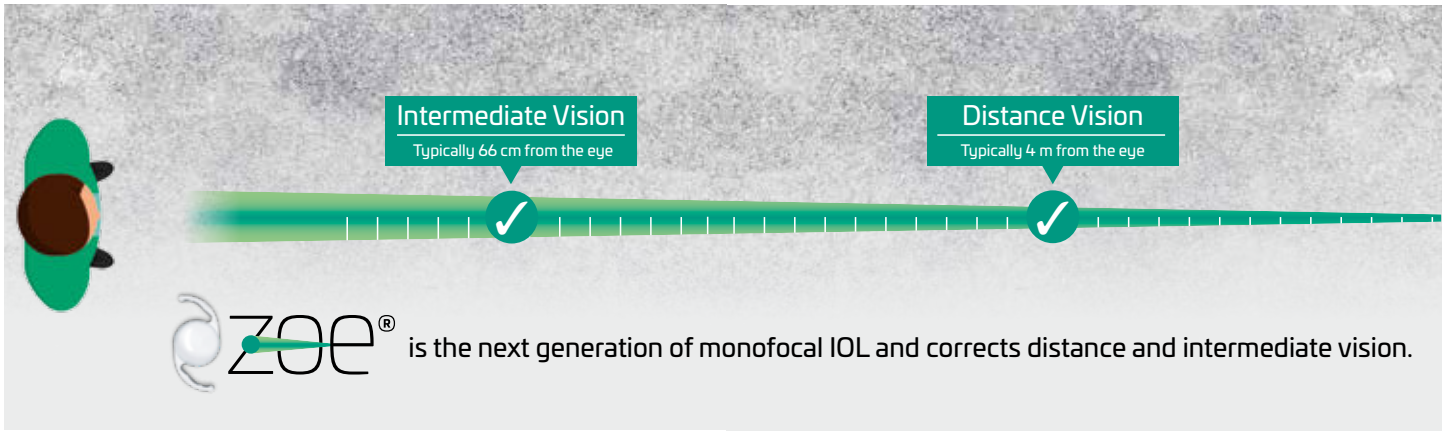
beyond monofocal
for far and intermediate distance

zoe® – beyond monofocal

This next-generation monofocal intraocular lens zoe® allows patients to experience high-quality vision at both **intermediate** and **far** distances.



Regular monofocal IOL does not correct the intermediate vision.



zoe® is the next generation of monofocal IOL and corrects distance and intermediate vision.

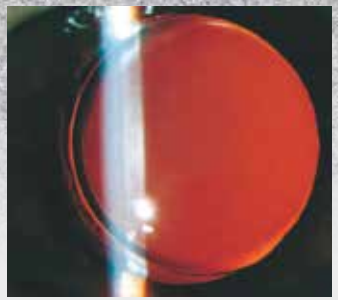
Today, most monofocal lenses only correct vision to help cataract patients see objects at a distance, and so they do not improve the intermediate vision that is required for so many important daily tasks.



zoe® helps patients improve daily tasks.

Glistening-free acrylic

The superiority of the hydrophobic acrylic material used in the zoe® was confirmed by the David J Apple Laboratory in Heidelberg using accelerated in-vitro ageing tests for the formation of glistenings that might appear several years post-implantation. The results indicated that the zoe® can be termed "glistening free".

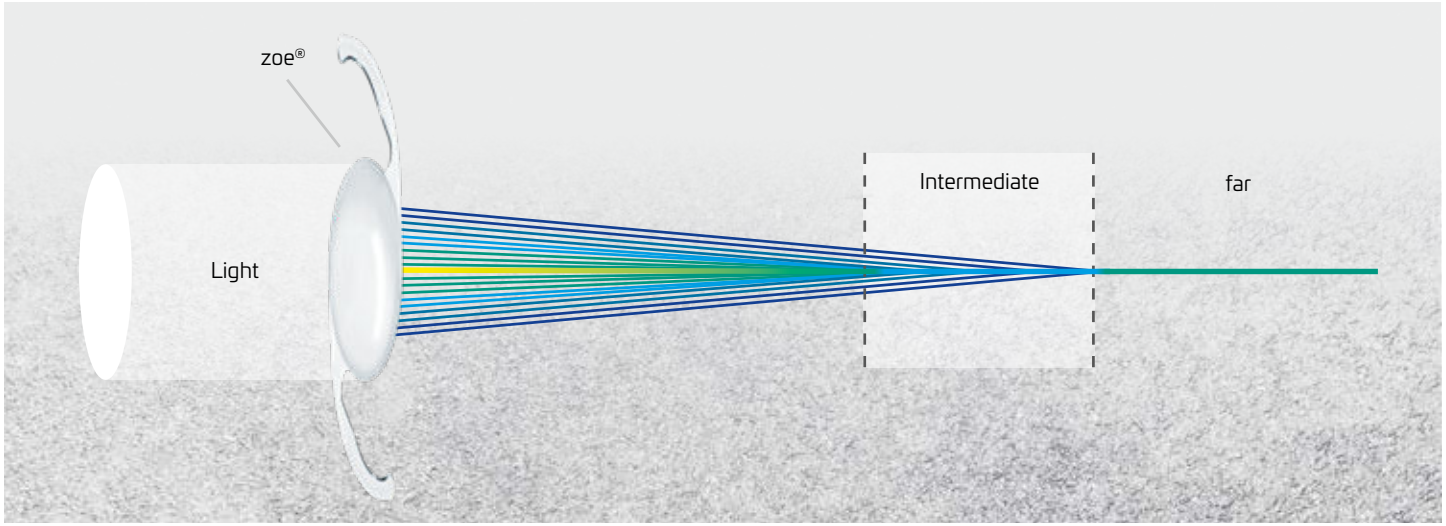


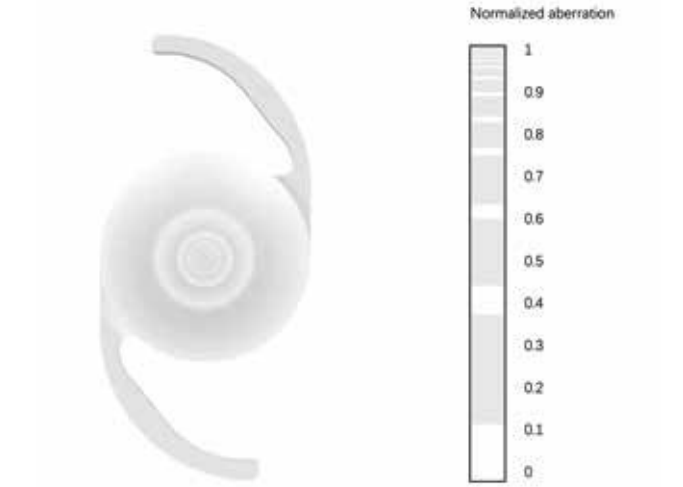
zoe® without glistenings

Clinical image of Competitor IOL with Grade 4 Glistening

The technology

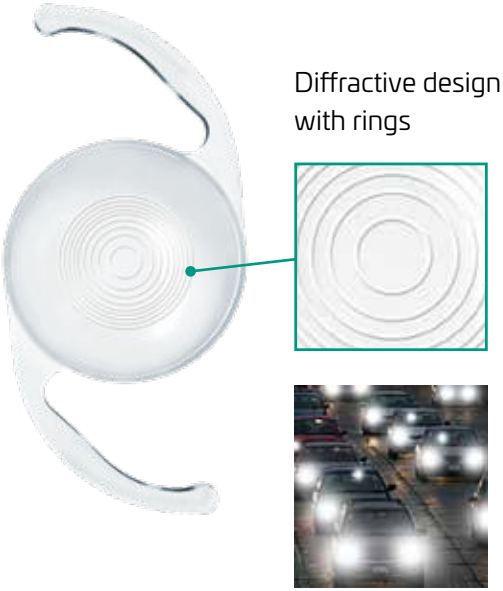
With its special and unique, High-Order anterior surface, the zoe® improves intermediate vision and maintains excellent distance image quality comparable to regular monofocal IOL.





Because its monofocal optic does not have diffractive rings, the zoe® design keeps photic phenomena to a minimum, comparable to a regular monofocal IOL and the zoe® design minimises the spherical aberration to almost zero.

EDOF is realized on high order aspherical optic with regionally modulated aberration.

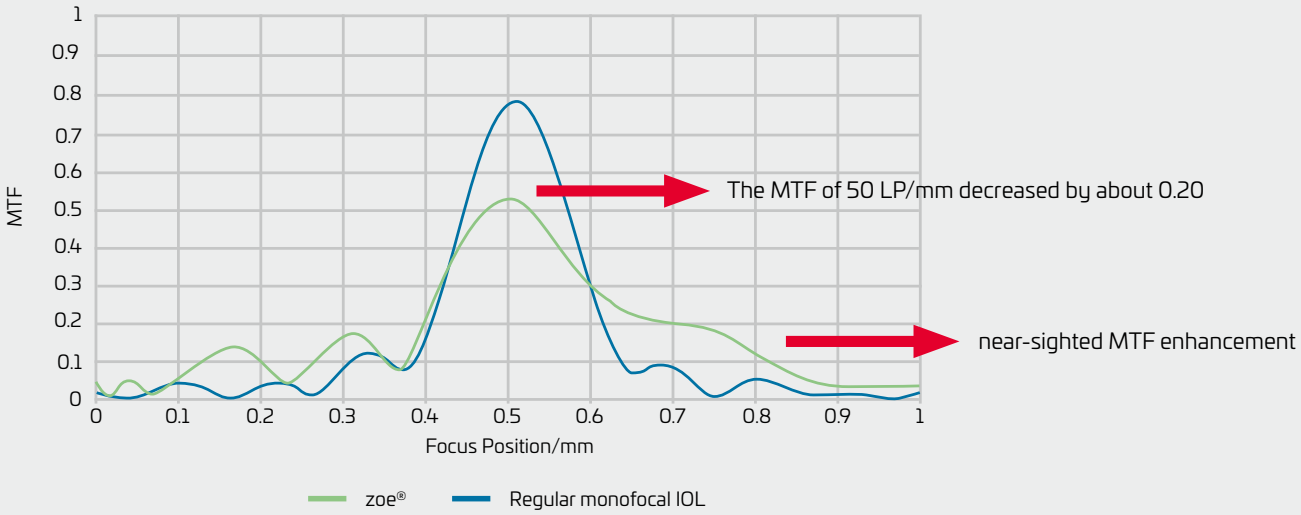


100% 1-Step preloaded

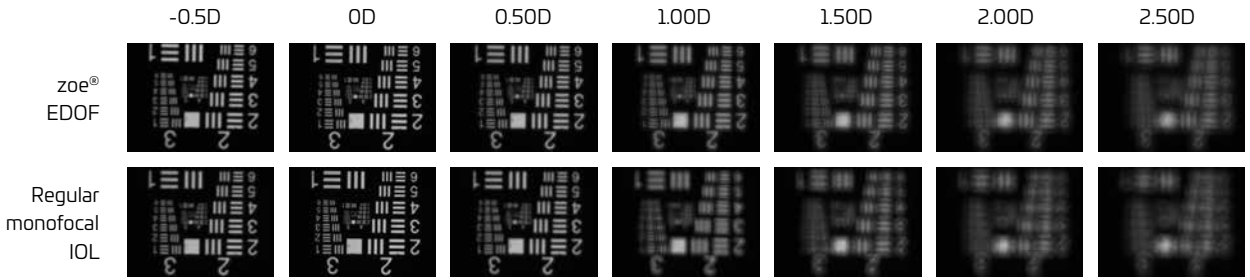
Just like the monofocal aspheric Primus-HD® IOL, the zoe® is preloaded in its injector using our well-established "ProSert" 1-Step Preloaded system. This perfectly protects the IOL against contamination. For surgical staff it is easy to use and it gives the surgeon a most reliable implantation performance, IOL after IOL.

- Dynamic tip allows implantations with 2.0 – 2.2 mm incisions
- Controlled implantation thanks to precision screw thread
- One step "into the bag"
- Optimal lens fit, 100 % preloaded
- Outer diameter of the injector tip: 1.78 mm

MTF test results

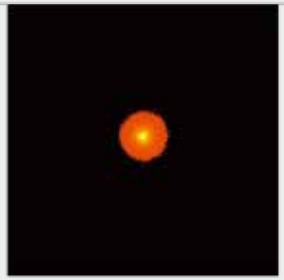
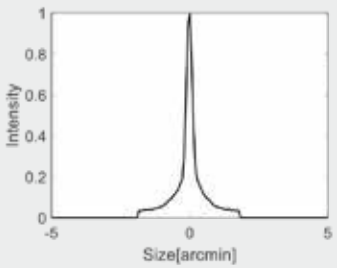
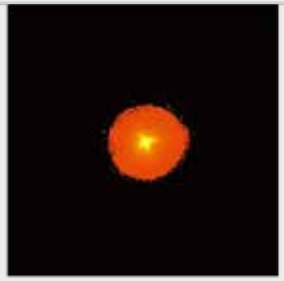
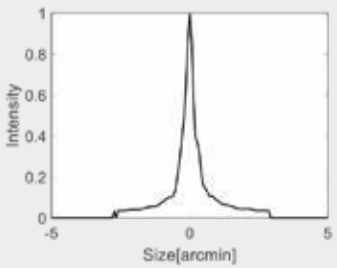
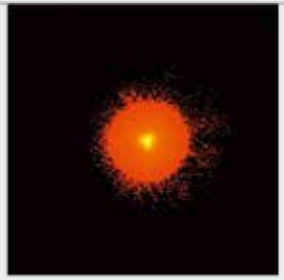
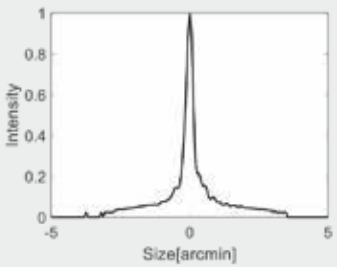


USAF image test



- The clarity of far focus is no different to that of that monofocal IOL, but the near-sighted distance is increased by +0.75D ~ 1.0D
- No glare, halo or other adverse optical interference regardless of the distance, middle or near

Point Spread Function – Test

	PSF image	*PSF cross section*	
zoe®			1.81 +- 0.07 arcmin
Competitor A			2.78 +- 0.13 arcmin
Competitor R			3.67 +- 0.18 arcmin

PSF projection confirmed that the zoe® design shows a similar halo profile to a regular monofocal IOL. In comparison, two competitor EDOF IOLs showed halos with significantly higher radius.

zoe® Technical data

Model	zoe®
IOL type	Single piece
Material	High-purity, hydrophobic acrylic, glistening-free, Miyata Grade Zero
Filter	UV-filter
Lens type	Posterior convex, aspherical optic to correct far and intermediate vision
Power Range	Preloaded across the dioptric range from +5D to +36D in 0.5 D
A constant*	118.9 (nominal)
Lens diameter	6.0 mm optic zone
Total diameter	13.00 mm
Haptic design and Angulation	Modified C-loop, 1.5°
Edge design	360° ultra-sharp square edge, roughened edge

Optimized values for Laser Biometry

Nominal	118.9
Haigis	a0=1.499 a1=0.40 a2=0.10
HofferQ	pACD 5.68
Holladay 1	sf=1.949
SRK/T	119.2
SRKII	119.6
Holladay 2	5.688
Barrett	DF 2.5/LF 2.000

*The A constant is the basis for calculating the lens power.
It is recommended that these be customized based on the experience of the operating surgeon and the equipment used.

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Products for ophthalmic surgery