LENTIS® Comfort & Comfort toric

The Pioneers in EDOF-Technology: Experience Comfort without compromise
The easy solution for demanding cataract patients

The tried and tested lens design of the LENTIS® Comfort is adjusted optimally to the far and intermediate range and thus has been particularly successful in meeting the demanding needs that most patients have with the refractive results of cataract surgery. Bridging the gap between standard monofocal and premium refractive IOLs, the LENTIS® Comfort offers both excellent intermediate vision as well as distance vision. This is especially of importance to cataract patients who want greater spectacle independence in everyday situations, such as using the computer, handling their smartphone, shopping, golfing or driving. Generally, all people who carry out manual activities further away than reading distance will benefit from this new lens. In short: The convenient lens solution for everyday situations!

The LENTIS® Comfort offers many advantages compared with a standard lens:

- **EDOF-IOL:** Extended depth of focus for an optimised vision covering patients’ requirements for most daily routines
- Excellent visual acuity results for the intermediate and distance ranges
- Improved contrast and depth of focus for optimal vision in low light conditions
- Natural image and colour perception
- Aberration neutral
- Now available with astigmatism correction: LENTIS® Comfort\textsuperscript{toric}

**Patient surveys confirm:**
- Computer or varifocal lenses no longer necessary!
- High patient satisfaction

**High Patient Satisfaction**

In a representative survey conducted by Dr. Julian Stevens (Moorfields Eye Hospital, London, UK) 92% of 192 surveyed patients, who were treated with a LENTIS® Comfort IOL confirmed that they would opt for this lens again due to the excellent visual results.

* Please find all references to the pertinent clinical literature at the end of this brochure.
Easy Toric Calculator for toric lenses: www.lentistoric.com

With the LENTIS® Comfort toric you now have the optimal tool to correct astigmatism with the help of available standard cylinders ranging from 0.75D to 5.25D in steps of 0.75D. Our Easy Toric Calculator enables you to calculate and order this lens in just 2 simple steps.

Welcome to the online Oculentis Toric Intraocular Lens Calculator.

Use this webpage to calculate the optimal toric LENTIS intraocular lens to offer a perfect vision for your patients.

For help/advice do not hesitate to contact your local distributor.

Please select the relevant Oculentis intraocular lens:
LENTIS® Comfort™ - Calculation and ordering in only 2 steps:

1. Calculation Form

- Surgeon/Clinic and patient data
- SE taken from Aladdin, IOL-Master, Lenstar, ...
- Consider the surgically induced astigmatism (if known)
- Corneal radii
- Refractive index from used device measuring the radii

2. Resulting IOL

- SE and cylinder values of the toric IOL
- Estimated residual astigmatism after implanting the toric IOL
- IOL alignment
- Ordering via mail
- Printout Orderform and Overview
Clinical Results  [Dr. Detlev Breyer, Breyer/Kaymak Augenchirurgie, Düsseldorf, Germany]

Dr. Detlev Breyer presented his strategies with blended vision for LENTIS® Comfort in the „Meet the Experts“ workshop in Munich. Priority target of that strategy is an optimised visual outcome for patients who have a high demand of spectacle freedom but a zero-tolerance for dysphotopsia.

The concept called “The Düsseldorf Formula” is as follows: The LENTIS® Comfort is implanted in both eyes, whereby one side targets emmetropic vision and the other side -1.5D.

The result: The emmetropic side covers the distance and intermediate ranges at minimal dysphotopsia excellently, in addition the -1.5D eye complements the distance and the intermediate vision with a functional near vision. Furthermore, Dr. Breyer spoke about more customized (in regard of the patient’s benefits and wishes) application variants using the LENTIS® Comfort intraocular lens.

### Comfort Blended Vision
- Both eyes get a LENTIS® Comfort IOL
- One eye covers distance vision and the intermediate range (target refraction emmetropia)
- The other eye covers the intermediate and the extended near range (target refraction -1.5D)

Result: Benefits of Comfort lens - minimal dysphotopsia - supplemented by an extension of the functional near vision

### Comfort Office Vision
- Both eyes get a LENTIS® Comfort IOL
- Both eyes focus on intermediate and extended near range (target refraction -1.5D)

Result: Perfect for computer distance and office work, glasses for distance needed

### Comfort Sports Vision (Emmetropic Vision)
- Both eyes get a LENTIS® Comfort IOL
- Target refraction on both eyes emmetropia

Result: Both eyes more independent from glasses for intermediate and distance ranges, „normal Comfort case“: glasses for near may be needed

### Reference curve: VA = 1.00 or 20/20

Source: Dr. D. Breyer
Clinical Results  [Dr. Dominique Pietrini, Clinique de la Vision, Paris, France]

The clinical trial is based on the experience of the first 50 eyes of 25 patients who received an LENTIS® Comfort lens in both eyes, and who were monitored for more than six months. All the eyes operated had cataracts, but the patients were not suffering from pathologies that could put strain on the final visual result (i.e. glaucoma, maculopathy, astigmatism of above 1.00D). The average age of the patients was 70 ± 10.1 years. The refractive target was between -0.25 and 0.50D for an implant constant according to the manufacturer’s recommendations (IOL Master, SRK-T formula). Patients received no specific information apart from being told that they might need occasional optical correction for near vision. All the patients were operated on and received the implant using a micro-incision of less than 2mm (ViscoJet injector, 1.8 mm).

![Figure A](image1.png)  ![Figure B](image2.png)

**Figure A:** Visual acuity without correction for distance and intermediate vision, monocularly and binocularly: The post-operative spherical equivalent was -0.39D, visual acuity without correction for distance vision was 0.859 (decimal) for monocular vision, 0.96 (decimal) for binocular vision, intermediate visual acuity was 0.64 (decimal) for monocular vision and 0.76 (decimal) for binocular vision.

**Figure B:** The monocular defocus curve after implanting the LENTIS® Comfort confirms the excellent performance of the implant for distance vision (defocus of 0.00D) and for intermediate vision (defocus of -1.50D).

Clinical conclusion: This new intraocular lens placed midway between a monofocal and a multifocal lens provides a real improvement in the visual results for cataract surgery thanks to the increased depth of field and the higher level of spectacle independence. A simple addition of +1.50D is required for near vision. No information is required beforehand, and it offers an excellent alternative to standard monofocal implants. Combined with a certain amount of monovision, it can provide almost total spectacle independence. It is also particularly indicated for patients suffering from myopia with a preoperative index, who can keep good intermediate vision. It also presents an alternative for patients with a contraindication for multifocal lenses. The LENTIS® Comfort is an excellent alternative to multifocal implants, especially for patients who are worried of the risk of visual side-effects regarding multifocal IOL in particular for mesopic vision. The almost total lack of halo and/or glare effects often experienced with asymmetric multifocal lenses brings the benefits of a premium implant, but without the side effects.
Clinical Results  [Prof. Dr. Jorge Alió, University Ophthalmology Clinic, Miguel Hernandez, Alicante, Spain]

In a comparative study by the Visum Institute (Alicante, Spain) under the management of Professor Alió, the visual results and the optical quality of the LENTIS® Comfort and of a so-called accommodating lens were observed, and evaluated post-operatively in just under 40 patients and 66 implanted eyes. The LENTIS® Comfort produced, for all distances, in particular in the wide intermediate range, considerably better visual acuity results than the accommodating IOL.

Figure: Comparison of mean defocus curves of LENTIS® Comfort (group A) and accommodating IOL (group B). The figure shows markedly better visual acuity results for the LENTIS® Comfort in all visual ranges.

Clinical Results  [Dr. Barbara Ameline-Chalumeau, MD, Clinique de la Vision, Paris, France]

In a recent scientific article Dr. Barbara Ameline-Chalumeau, MD, describes her clinical results after the implantation of 75 LENTIS® Comfort intraocular lenses. She surmises that the LENTIS® Comfort IOL can restore visual function over a large range of distances and provide predictable refractive correction and excellent optical performance. The level of functional vision achieved with this new modality of extended depth of focus can have a significant impact on multiple aspects of quality of life and promote spectacle independence for most daily activities. Moreover, patients reported excellent indices on 10 of 13 scales: clarity of vision, near vision, distance vision, diurnal fluctuations, activity limitations, symptoms, dependence on correction, worry, suboptimal correction, and appearance. The median index of satisfaction with correction approached 90%.

The LENTIS® Comfort might become an alternative to standard monofocal lens implantation as well as an interesting solution to treat patients who are worried about the side effects of multifocal IOLs.
What do the professionals say about the LENTIS® Comfort?

"Using the Düsseldorf Formula as a guide to implanting the LENTIS’ line of IOLs in a strategic fashion, according to patient requirements, allows us for the first time in the history of multifocal IOL surgery to provide our patients with spectacle independence nearly without the risk of photopic phenomena and loss of contrast sensitivity. This fact allowed us to use this strategy in close to 80% of our cataract and about 95% of our refractive lens exchange patients. Could you do this with rotationally symmetric diffractive multifocal IOL?"  


"The results of our study have shown that bilateral implantation of the low near-add LENTIS’ Comfort IOL and bilateral implantation of the LENTIS’ L-313 monofocal IOL produce similar results in regard to visual acuity, contrast sensitivity, and IOL tilt and decentration. The LENTIS’ Comfort provided patients with better stereovision and less spectacle dependence for near vision tasks."  

Oliver Findl, MD, MBA, FEBO, Director and Professor of Ophthalmology, Hanusch Hospital, Vienna, Austria, 07/2016.

"In our study, patients with ERM who received the LENTIS’ Comfort LS-313 MF15 fared significantly better in terms of intermediate UCVA than patients with ERM who received a monofocal IOL."  

Michael J. Koss, MD, MHBA, practices at the Augenzentrum Nymphenburger Höfe – Augenklinik Herzog Carl Theodor, Munich, Germany, 07/2016.

"After studying the LENTIS’ Comfort™, we have concluded that this extended depth of focus IOL should be considered as an effective treatment for presbyopia and astigmatism. It provides patients with excellent refractive predictability and distance and intermediate visual acuities of greater than 1.0, good near vision for newspaper reading, and a wide range of view. It also has exceptional rotational stability, thereby decreasing the need for postoperative adjustments."  

Florian T.A. Kretz, MD, FEBO, Lead surgeon, Eyeclinic Ahaus-Raesfeld-Rheine, Dr. Gerl & colleagues, Ahaus, Germany, 07/2016.

"Our initial clinical results demonstrate that the LENTIS’ Comfort IOL is an excellent alternative to monofocal lens implantation in cataract surgery. This monofocal-plus IOL provides excellent intermediate vision and acceptable near vision; many patients achieve total spectacle independence, even for reading."  

"Because of the possibility for photopic and night driving problems that can occur with all multifocal IOLs, we also have the LENTIS’ Mplus and LENTIS’ Comfort in our portfolio. These lenses provide high levels of patient satisfaction, due to their good results in contrast sensitivity and reduction of glare and halos. When patients are interested in good intermediate visual acuity and have no objection to using glasses for extended reading, the LENTIS’ Comfort with its 1.5 D of near addition is our first choice. Historically, mix-and-match strategies have not been our choice, but we are considering this approach with the Mplus and the LENTIS’ Comfort after hearing of the impressive results of colleagues including Sunil Shah, MBBS, FRCOphth, FRCSI(Ed), FBCLA."  

Detlef Holland, MD, is a cataract and refractive surgeon at the Augenklinik Bellevue, Kiel, Germany, 02/2014.

"I have been using the LENTIS’ Comfort and I am enormously impressed with the outcomes and the levels of spectacle independence that this gives to my patients. I have had these lenses implanted in both my eyes and am delighted with the outcome. I can wholeheartedly recommend this intraocular lens for suitable patients.”  


"3 years ago I would have only considered a monofocal lens for my own eyes, but if I was considering surgery right now this is the lens I would have myself.”  

Julian Stevens, Consultant Ophthalmic Surgeon, Moorfield Eye Hospital, UK, 2013.

"It [LENTIS’ Comfort] can improve depth of field compared with a monofocal IOL and performs well in standard cataract cases for patients or surgeons reluctant to use a multifocal IOL. The LENTIS’ Comfort can be used with a mix-and-match approach.”  


"The trend is to go more for intermediate vision nowadays because of the increased use of PCs, iPhones and iPads. The patients I see in my practice don’t mind wearing reading glasses at home for long-time reading. But they want to go out of the house and not wear glasses, use their electronic devices, do their shopping and see well."  

## LENTIS® Comfort | Comfort toric

The technologically advanced lens design of the unique LENTIS® Comfort and Comfort toric EDOF IOLs provides an enhanced visual experience for demanding cataract patients who want to be more spectacle independent while performing their daily routine activities such as working at the computer, shopping or driving a car.

<table>
<thead>
<tr>
<th>Product</th>
<th>LENTIS® Comfort</th>
<th>LENTIS® Comfort toric LS-313 MF15 TO-T6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Foldable one-piece acrylic IOL</td>
<td>One-piece toric acrylic IOL for capsular bag fixation</td>
</tr>
<tr>
<td>**Optic Size</td>
<td>Overall Length**</td>
<td>6.0 mm</td>
</tr>
<tr>
<td><strong>Haptic Angulation</strong></td>
<td>0°</td>
<td></td>
</tr>
<tr>
<td><strong>Optic Design</strong></td>
<td>- Diopters: Convex-concave</td>
<td>Biconvex</td>
</tr>
<tr>
<td></td>
<td>+ Diopters: Biconvex</td>
<td>Aspherical surface - posterior,</td>
</tr>
<tr>
<td></td>
<td>sectorshaped nearvision segment - anterior: +1.5D</td>
<td>sectorshaped nearvision segment - anterior: +1.5D</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Optic and haptics with square edges</td>
<td>Posterior 360° continuous barrier effect</td>
</tr>
<tr>
<td><strong>Material</strong></td>
<td>HydroSmart® - a copolymer, consisting of acrylates with hydrophobic surface, UV absorbing</td>
<td></td>
</tr>
<tr>
<td><strong>Available Diopters</strong></td>
<td>-10.0 D to -1.0 D (1.00)</td>
<td>+3.0 D (0.5D)</td>
</tr>
<tr>
<td></td>
<td>±0.0 to +36.0 D (0.5D)</td>
<td></td>
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<tr>
<td><strong>Refractive Index</strong></td>
<td>1.46</td>
<td></td>
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<tr>
<td><strong>Estimated A-Factors</strong></td>
<td>nominal</td>
<td>Haigis</td>
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<tr>
<td></td>
<td>A = 118.0</td>
<td>a0 = 0.95</td>
</tr>
<tr>
<td></td>
<td>ACD = 4.97</td>
<td>a1 = 0.40</td>
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<tr>
<td></td>
<td>a2 = 0.10</td>
<td>a2 = 0.10</td>
</tr>
<tr>
<td></td>
<td>Holl.I</td>
<td>SRK/T</td>
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<td></td>
<td>sf = 1.47</td>
<td>A = 118.5</td>
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<td></td>
<td>SRK II</td>
<td>A = 118.6</td>
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<tr>
<td><strong>Anterior Chamber Depth</strong></td>
<td>4.97 mm</td>
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<tr>
<td><strong>Recommended Incision Size</strong></td>
<td>2.0 mm* / 2.4 mm</td>
<td>2.0 mm* / 2.4 mm</td>
</tr>
<tr>
<td><strong>Recommended Injector [reusable]</strong></td>
<td>Viskoject-1-hand: LI60420S</td>
<td>Viskoject-1-hand: LI60420S</td>
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<tr>
<td></td>
<td>Viskoject-2-hand: LI604215</td>
<td>Viskoject-2-hand: LI604215</td>
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<tr>
<td>Cartridges:</td>
<td>Viskoject BIO 1.8 Cartridge-Set: LP604250C**</td>
<td>Viskoject BIO 2.2 Cartridge-Set: LP604240C</td>
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<tr>
<td></td>
<td>Viskoject BIO 2.2 Cartridge-Set: LP604240C</td>
<td></td>
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<tr>
<td><strong>Recommended Injector-Sets [disposable]</strong></td>
<td>Viskoject BIO 1.8 Injector-Set: LP604350C**</td>
<td>Viskoject BIO 2.2 Injector-Set: LP604340C</td>
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<tr>
<td></td>
<td>Viskoject BIO 2.2 Injector-Set: LP604340C</td>
<td>Comportl. Injector-Set: C20L6083**</td>
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<tr>
<td></td>
<td>Comportl. Injector-Set: C20L6083**</td>
<td>Comportl. Injector-Set: C20R6013**</td>
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<tr>
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<td>Viskoject BIO 2.2 Injector-Set: LP604340C</td>
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<td></td>
<td>Comportl. Injector-Set: C20L6083**</td>
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<tr>
<td></td>
<td>Comportl. Injector-Set: C20R6013**</td>
<td></td>
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</tbody>
</table>

Source: ULIB (User Group for Laser Interference Biometry)  | [www.ocusoft.de/ulib](http://www.ocusoft.de/ulib)  
References:  | [www.ocusoft.de/ulib/c1.htm](http://www.ocusoft.de/ulib/c1.htm)  

* For 2.0 mm incision sizes we recommend the Viskoject BIO 1.8  
** max. 25.00  

The given constants are to be seen as a guide value and basis for the calculation of the IOL refractive power. Detailed information on the calculation of own constants can be found at [www.ocusoft.de/ulib/c1.htm](http://www.ocusoft.de/ulib/c1.htm).
A standard lens treats cataracts perfectly, but does not fulfill the wish for greater spectacle independence for intermediate ranges. Consequently, the patient, despite having undergone cataract surgery, has to rely on special and costly glasses, like varifocals.
The LENTIS® Comfort offers both sharp distance and excellent intermediate vision and thus providing greater spectacle independence. Clinical results attest an optimal visual performance with this IOL.
Bibliography


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Sunil Shah, MD, FRCOphth, FRCS(Ed), Magda Rau, MD, Detlef Holland, MD, Julian D. Stevens, MRCP, FRCS, FRCOphth, Gerd U. Auffarth, MD, PhD, FEBophth, Florian T.A. Kretz, MD, FEBO, Manfred R. Tetz, MD, Detlev R.H. Breyer, Hiroyuki Ari, MD, PhD, Ludger Hanneken, MD, Dominique Pietrini, MD, Ruediger Schmid, MD, FEBO, Ben Wanders (CEO Oculentis BV), Experts Uncover the next generation of LENTIS IOLs - Innovative solutions for presbyopia, laser refractive cataract surgery IOLs, AMD, and more, Supplement to Cataract & Refractive Surgery Today Europe 02/2014.

Jorge L. Alió, MD, PhD; Gerd U. Auffarth, MD, PhD, FEBO; Roberto Bellucci, MD; Oliver Klaproth, Dipl-Insp(H); Thomas Kohnen, MD, PhD, FEBO; Peter Mogocs, MD, PhD, FEBO; Thomas F. Neu mann, MD; Tobias H. Neu mann, MD; Milind Pande, MBBS, DQ, FRCS, FRCOphth; Dominique Pietrini, MD; Magda Rau, MD; Pavel Stodulka, MD, PhD; Marie-José Tassinon, MD, PhD, FEBO; and Jérôme C. Vryghem, MD, State of the Premium IOL Market in Europe, Cataract & Refractive Surgery Today EUROPE January 2013.

Jorge L. Alió, MD, PhD; Ana B. Plaza-Puche, MSc; Raul Montalban, MSc; Jaime Javaloy, MD, PhD; Visual outcomes with a single-optic accommodating intraocular lens and a low-addition-power rotational asymmetric multifocal intraocular lens, J CATARACT REFRACT SURG - VOL 38, JUNE 2012.

Dominique Pietrini, MD Consultant, State of the Premium IOL Market in Europe, Cataract & Refractive Surgery Today EUROPE January 2013.

Dominique Pietrini, MD Consultant, Expérience du nouvel implant LENTIS® Comfort dans la chirurgie de la cataracte, Les Cahiers d’ophtalmologie, n° 165 - Décembre 2012.

Julian Stevens, MRCP, FRCS, FRCOphth, Moorfield Eye Hospital, London, UK, Oculentis Mplus “Comfort” low-power add multifocal lens implant, clinical presentation 2013, data on file.


Recommended Reading:

Detlev R.H. Breyer, MD, Oliver Findl, MD, MBA, FEBO, Eckhard Becker, MD & Julia Lübinghoff, MD, Michael J. Koss, MD, MHBA, Florian T.A. Kretz, MD, FEBO, WE ENVISION. YOU SEE. LENTIS® Comfort: Experience Comfort without compromise, Supplement to Cataract & Refractive Surgery Today Europe July/August 2016

Manufacturer:

Oculentis BV
Kollergang 9
6961 LZ Eerbeek, the Netherlands

We envision. You see. | www.oculentis.com
LENTIS® Comfort & Comfort toric

The new gold standard for your monofocal IOL patient
The right choice of intraocular lens for virtually all of your IOL patients

The LENTIS® Comfort serves the standard intraocular lens patient better than existing monofocal lenses!

**New:** Optional correction of standard cylinder (0.75 to 5.25D in steps of 0.75D) with LENTISComfort® toric lenses.

**4 reasons for choosing these lenses:**

1. **Optimal cataract treatment plus depth of focus in the intermediate distance (EDOF concept):**
   Everyday activities such as computer work, driving, using a mobile or reading price tags are mostly possible without glasses. The “post-surgery feel-good and satisfaction factor” increases significantly among patients.

2. **Same pre- and post-op care as for monofocal lenses patients:**
   The exclusion criteria and contraindications are no different than for standard IOL.

3. **Less chair time pre- and post-op:**
   There is no need for “premium patient counseling” because there are virtually no photic effects compared to conventional multifocal lenses

4. **Exponential multiplier effect:**
   The high patient satisfaction rate of almost all of your cataract patients after surgery ensures a high degree of word-of-mouth recommendation and thus “free of charge” advertisement for your clinic/practice.

**Advantages for you:**

- Greatest possible patient recruitment pool
- Significantly reduced chair time
- High reputational potential for the practice
- Happy and satisfied patients

**The IOL technology behind it:**

Aspherical intraocular lens with depth of focus function.

**EDOF concept: Extended Depth of Focus as a result of the low 1.5D addition.**

**Manufacturer:**

**Oculentis BV**  
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6961 LZ Eerbeek, the Netherlands

**We envision. You see. | www.oculentis.com**