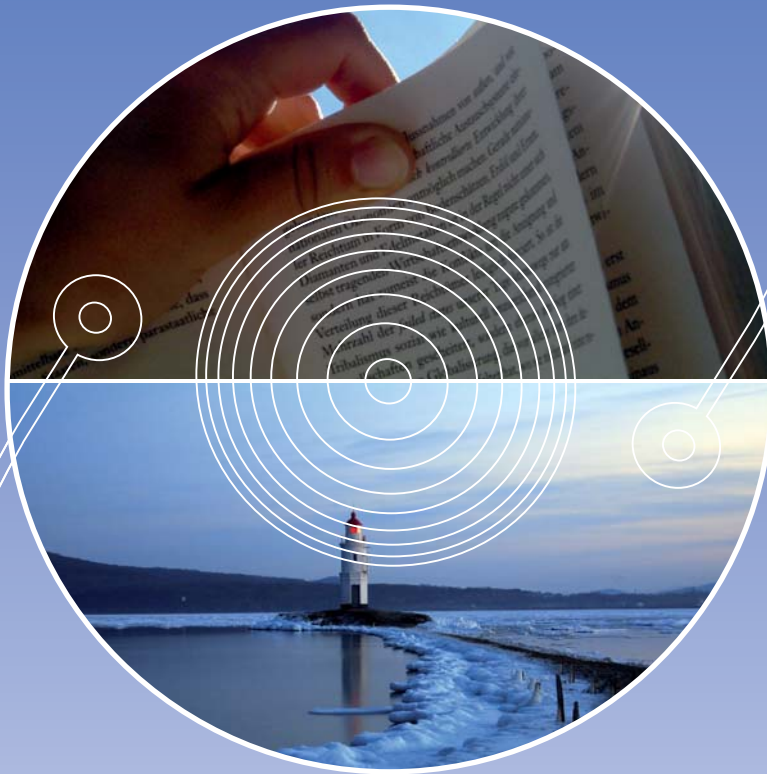


MicroSil®
Diffractive



***The Multifocal IOLs -
For Enhanced Reading Comfort***

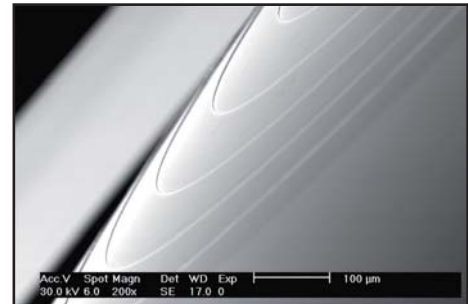
Near addition of +3,5 D (IOL plane)

Enhanced reading comfort in ergonomic reading distance.

Special aspheric design enables

- ▶ reduction of spherical aberrations to improve functional vision
- ▶ still ensures enough depth of focus to support intermediate vision

Picture: SEM-photography of the precise, diffractive surface



Mixture of monofocal and diffractive design

Different to multifocal IOLs with full diffractive zone, the ring structure of the *MicroSil Diffractive* is focalized to the inner, central region.

The big monofocal part in the periphery of the lens offers excellent optical properties practically without limitations. Drawbacks linked to other diffractive principles (i.e. glare and halos) are therefore reduced to a minimum.

Excellent PCO-behaviour

The 360° sharp optic edge provides excellent PCO-behaviour.

[e.g. following Sacu S, Menapace R et. al. Long-Term Efficacy of Adding a Sharp Posterior Optic Edge to a Three-Piece Silicone Intraocular Lens on Capsule Opacification: Five-Year Results of a Randomized Study. American Journal of Ophthalmology 2005; 139(4):696-703]

„Oval cross-section haptics“

For the success of multifocal IOLs it is absolutely essential that the ring structure is placed concentrically to the pupil (ideally: the optical axis).

The special “oval cross-section haptics” of the *MicroSil Diffractive* spread the arising forces omni-directional and therefore ensure reliable centration.

Picture: High axial stability combined with radial flexibility ensure high refraction stability



„Far vision accentuated diffractive lens“

The surface is optimized to create an energy shift between both focal points depending on pupil diameter.

Far vision

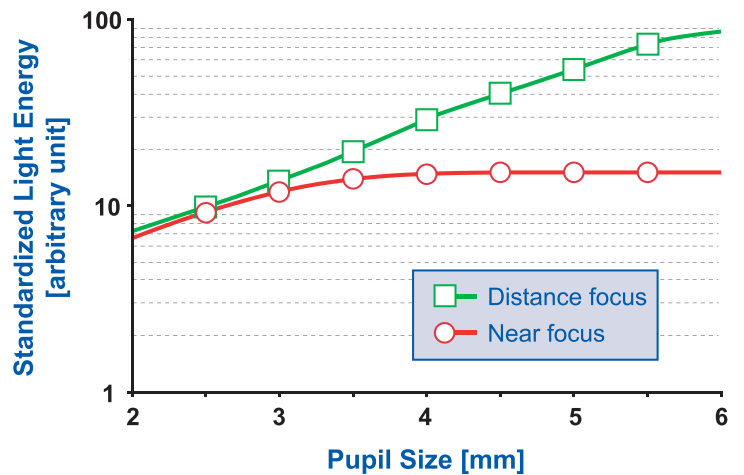
With larger pupils far vision is emphasized by

- ▶ a monofocal, refractive surface in the outer optical zone
- ▶ the peripheral attenuation of the diffractive element

Near vision

With smaller pupils the central element of the *MicroSil Diffractive* emphasises near vision and far vision with the same intensity.

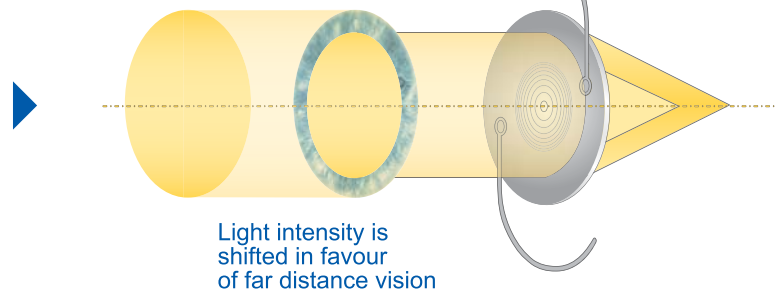
Light distribution in relation to pupil size measured with photometer



Accentuated far vision with the *MicroSil Diffractive*



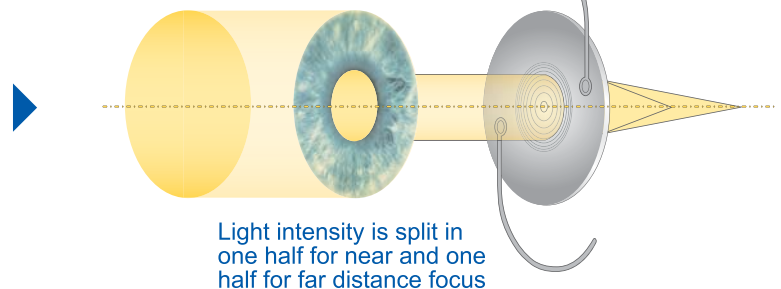
Pupil dilatation under mesopic and far distance conditions



Enhanced reading comfort with the *MicroSil Diffractive*

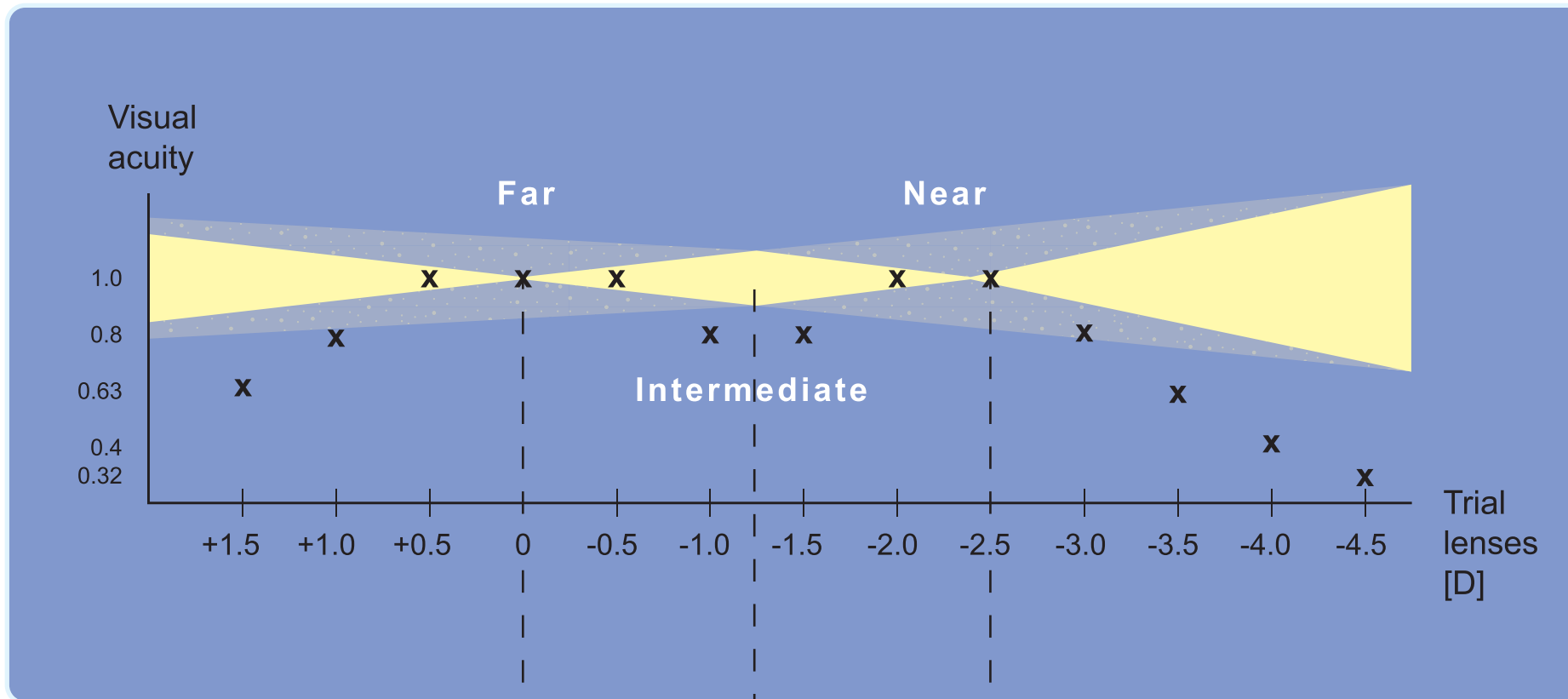


Pupil constriction under photopic and near distance conditions



Defocus curve diagramm

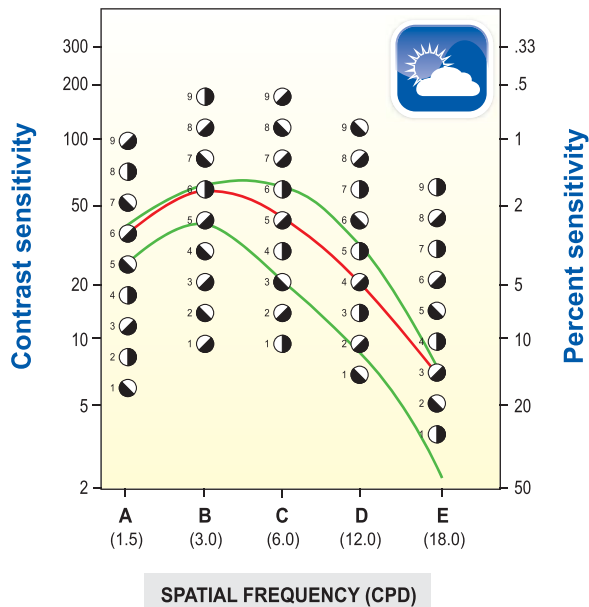
Actual clinical measurements¹, monocular at 3 months follow-up, super imposed by image simulations referring to paraxial beam tracing.



Contrast sensitivity (At 3 months postop)¹

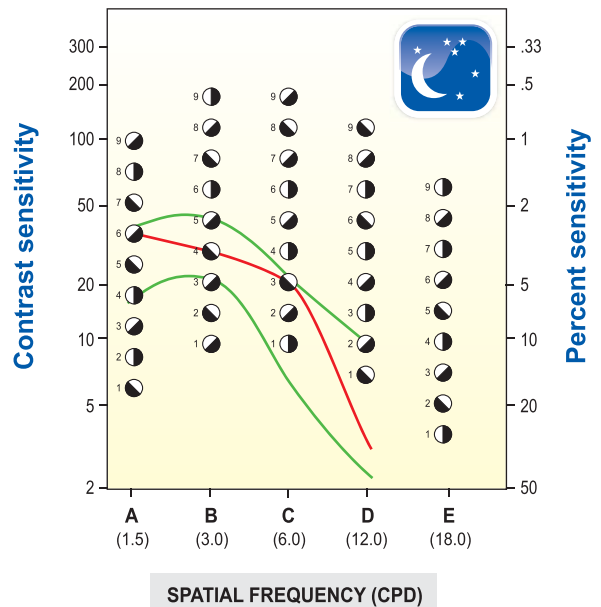
DAY TESTING WITHOUT GLARE

(GINSBURG Contrast Vision Test)



NIGHT TESTING WITHOUT GLARE

(GINSBURG Contrast Vision Test)



— Upper and lower quartile for aspheric monofocal IOL
 — Median MicroSil Diffractive



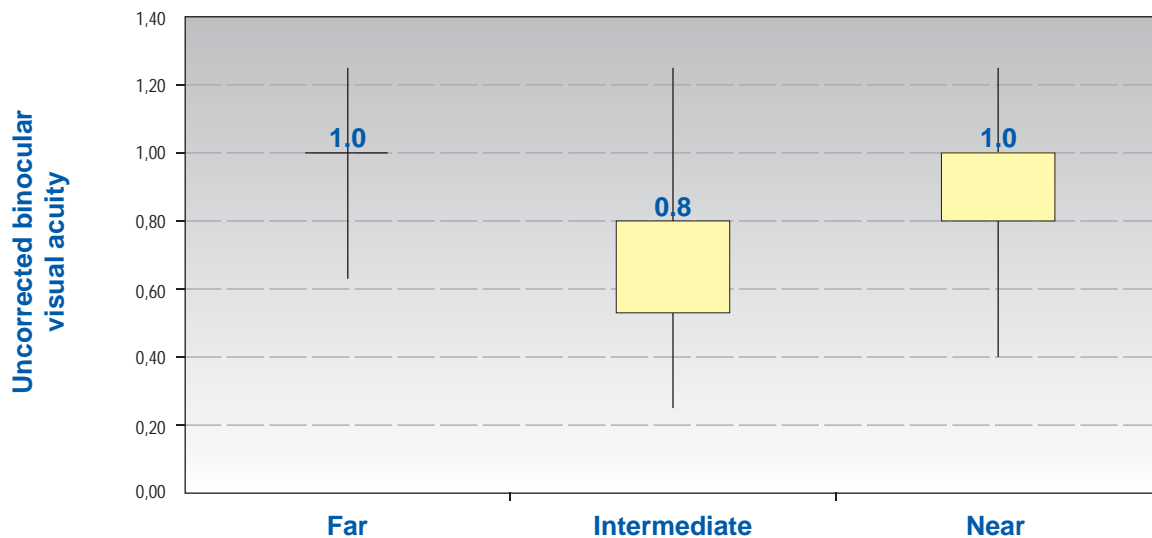
How to select - Does one of the following criteria apply?

- ▶ Pathological findings with potential to reduced vision (macula degeneration, ...)
- ▶ Predisposition to IOL decentration (zonula weakness, ...)
- ▶ High or irregular astigmatism (if not compensated e.g. by toric Add-On IOL)
- ▶ No will to accept side effect like halos etc. (e.g. night drivers, ...)
- ▶ Intense need to read small print at dimmed light
- ▶ Failing compliance, unrealistic expectations
- ▶ Lack of binocular vision

➔ In such cases the patient's visual system might be limited or unable in adjusting to multifocal systems.

Recommendation: use of diffractive *Add-On* lens - this principle always gives the option to easily remove the diffractive part without need to touch the capsular bag lens.

Visual acuity (Binocular far, intermediate and near UCVA one year postop)²



Patient satisfaction

- ▶ The question for overall postoperative patient satisfaction was answered in 100% of cases with “excellent”.²
- ▶ All patients would opt for this procedure again.²
- ▶ All of the patients exhibited spectacle free functional vision.³
- ▶ None of the patients needs glasses for far correction and only 5% of patients stated to use additional reading glasses regularly.²
- ▶ If explicitly asked 46% of all patients had realised glare and halos, out of which only 6% could not get used to.²
- ▶ None of the patients considered mesopic car driving as “poor”.²

Implantation

- ▶ All of the IOLs were implanted without difficulty and showed good centration over time. No intra- or postoperative complications were noted.³

¹ Data on file, Dr. Schmidt Intraocularlinsen GmbH

² Oberheide U, Kermani O, Schmiedt K et al. Diffraktive Sulkusgestützte add-on HKL: Ergebnisse einer prospektiven Studie. DOC 2009; Book of Abstracts; p. 244

³ Petrou Binder S. Encouraging results with MS 612 Diffractiva IOL. Eurotimes 14 /4 2009; 33

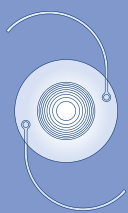


Choose from the various, individual solutions!

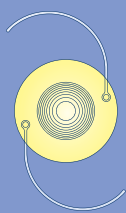
Besides the capsular bag models also sulcus and Add-On solutions are available.

All models have proven their beneficial lens design since long years, experienced by their standard MicroSil equivalents.

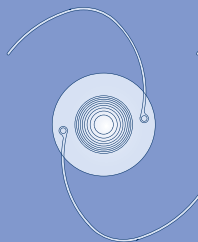
All three basic models are also offered with yellow colouring agent for blue light protection.



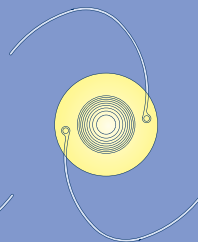
MS 612 Diff



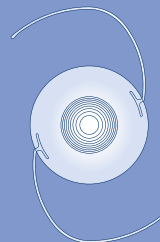
MS 612 DAY



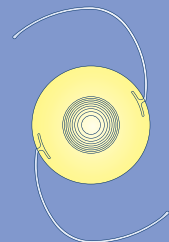
MS 614 Diff



MS 614 DAY



MS 714 PB Diff



MS 714 PB Diff-Y

Prime Quality - Made in Germany

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