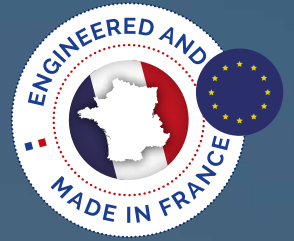




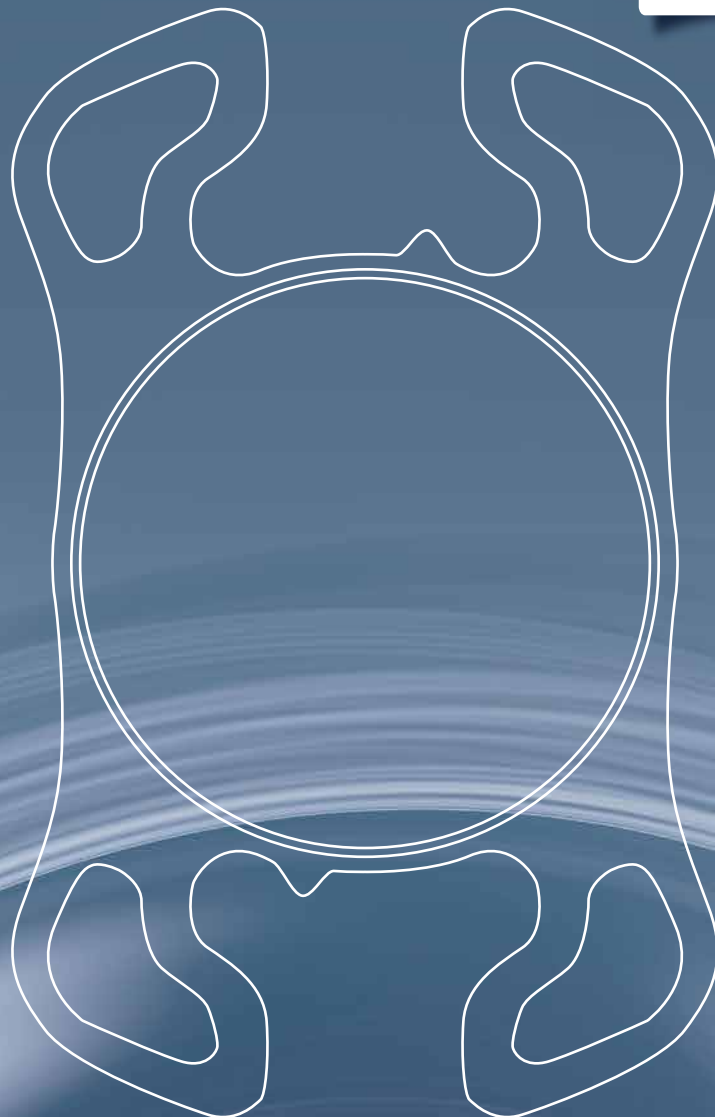
CUTTING EDGE
sense of innovation



Synthesis[®]

Acrylic Monofocal

NEW



Synthesis[®]

Acrylic Monofocal

CUTTING-EDGE TECHNOLOGY IOL

Synthesis[®] is a new acrylic monofocal intraocular lens, developed and manufactured by CUTTING EDGE, expert in IOLs design.

Cutting Edge builds experienced and dedicated teams to design, prototype and manufacture high-quality Intraocular Lenses. Our state-of-the-art facility honours the quality and process sophistication of the medical device industry.

The proximity of our Research & Development team to our manufacturing operations is truly significant for building close links and in using a results-orientated approach.

Cutting Edge masters all manufacturing stages in house, from machining to optical and mechanical tests, through to packaging and international logistics.

Synthesis was engineered by a team who fully believe that the human eye is both fragile and precious and requires the utmost in precision, “savoir-faire” and faultless industrial quality.



THE LATEST ALL-IN-ONE INNOVATIONS PLATFORM



SAFETY

- **Material**
Clear or blue-light-filtering option
- **Design**
 - 4 point fixation haptics
 - 360° C-Edge+ square edges
 - Orientation notch on optic edge
- **Truly MICS enhanced characteristics**

REPRODUCIBILITY

- **Optic**
 - 6 mm diameter optic
 - Anatomically friendly with 3 overall diameter
 - Aberration neutral Aspheric lens
 - Posterior shift features
- **Injection**
 - Latest injection system options

From -10.0 D to +40.0 D

- 1 D increment between -10.0 D to +10.0 D & +31.0 D to +40.0 D
- 0.5 D increment between +10.0 D to 30.0 D

OPTICAL QUALITY

- MTF curves exceed ISO 13485 norm
- UV and blue-light-filtering option



CUTTING EDGE

SAFETY

MATERIAL

- Acrylic copolymer successfully **used for more than 17 years** in ophthalmology
- **Ultraviolet absorption**
- **Blue-light-filtering** option (yellow)

DESIGN

- **4 point** fixation haptics
- **3 overall diameters** to fit the capsular bag:
 - 11 mm from -10.0 D to +15.0 D
 - 10.7 mm from +15.5 D to 22.0 D
 - 10.5 mm from +22.5 D to +40.0 D
- **Enhanced C-Edge+** $\leq 5\mu\text{m}$ 360° square edge

Synthesis[®]

Acrylic Monofocal



Overall diameter

- 11 mm
- 10,7 mm
- 10,5 mm

C-EDGE+ SCANNING ELECTRON MICROSCOPY IMAGES

MAGNIFICATION 50X



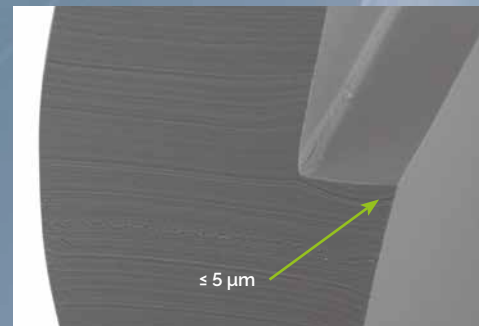
2 mm

MAGNIFICATION 200X



500 μm

MAGNIFICATION 500X



$\leq 5 \mu\text{m}$

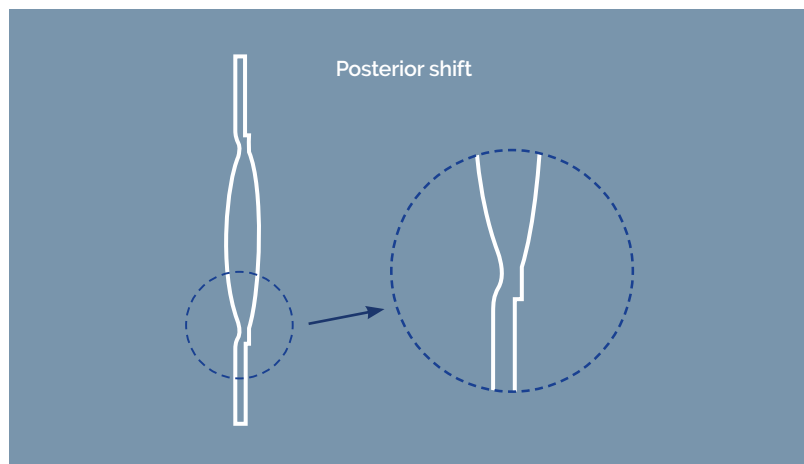
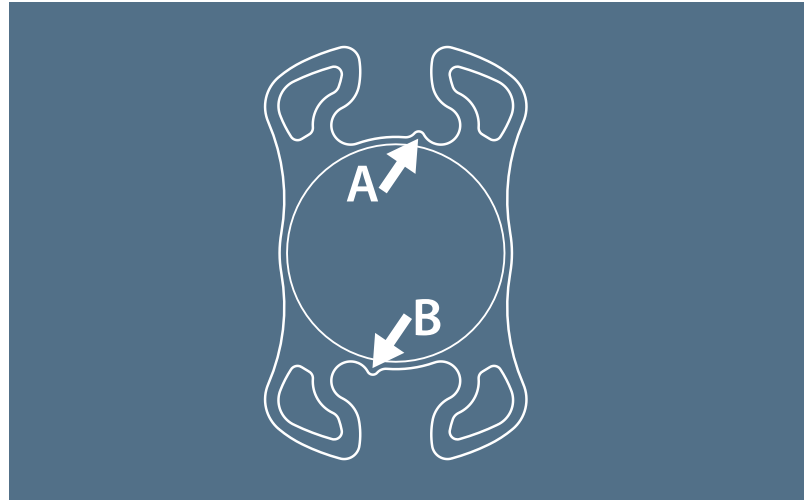
200 μm

C-EDGE+

REPRODUCIBILITY

OPTIC

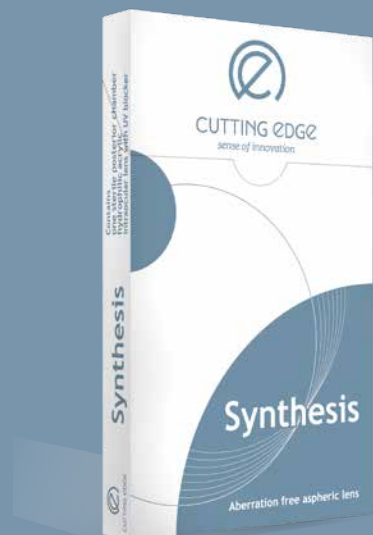
- **6 mm optic** across the power range
- **Orientation notch** at the optic edge
- **Posterior shift**: vaulted design for excellent capsular bag adhesion
- **Aberration neutral**
Aspheric profile
- **Homogeneous surface** across the power range for consistent injection forces regardless of IOL diopter.



Synthesis[®]
Acrylic Monofocal



CE
0197

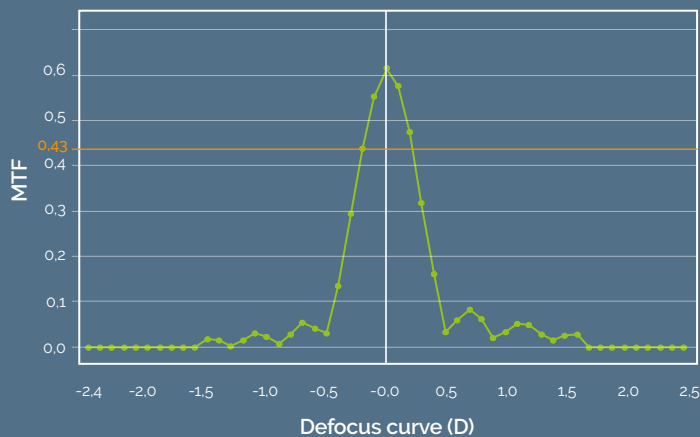


OPTICAL QUALITY

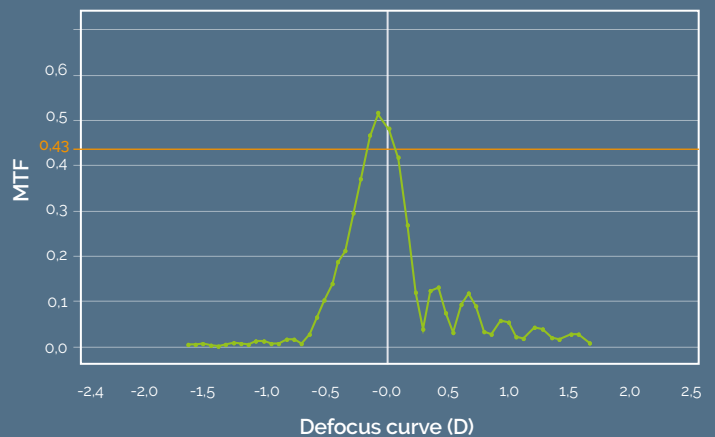
MTF (MODULATION TRANSFER FUNCTION)

Synthesis exceeds ISO 11979-2 standard requirement for optical properties and test methods (0.43 at 100 cycle/mm) at all light conditions and pupil diameter.

**SYNTHESIS® MTF
IN DAY LIGHT CONDITIONS**
(3 mm pupil diameter)

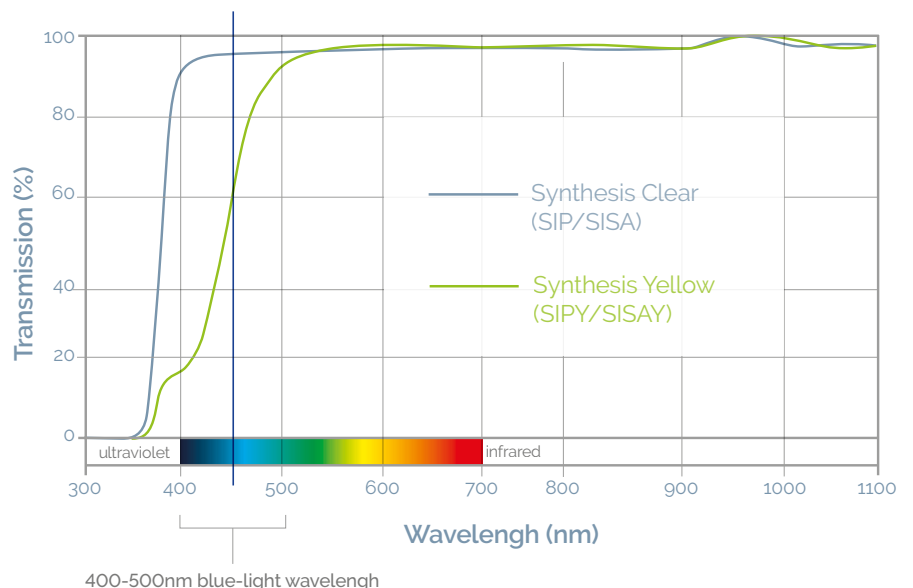


**SYNTHESIS® MTF
IN DIM LIGHT CONDITIONS**
(4.5 mm pupil diameter)



SPECTRAL TRANSMISSION



Synthesis Yellow filters 40% of blue light at 450nm wavelength



TECHNICAL SHEET

| DESIGNATION | SPECIFICATIONS |
|----------------------|--|
| Optic diameter | 6 mm across the power range (0.0 D to 30.0 D) |
| Diopter Range | 1 D increment between -10.0 D to +10.0 D & +31.0 D to +40.0 D 0.5 D increment between +10.0 D to +30.0 D |
| Ordering information | Stock items between 0.0 D to 35.0 D On-order (4 weeks lead-time) between -10.0 D to -1.0 D & 36.0 D to 40.0 D |
| Total diameter | From -10.0 D to 15.0 D: 11.0 mm From 15.5 D to 22.0 D: 10.7 mm From 22.5 D to 30.0 D: 10.5 mm |
| Design | 4 point-fixation, C-Edge+ ≤ 5 microns |
| Angulation | 0°, posterior-shift feature |
| Optic | Aspheric aberration-neutral |
| Biometry | SRK/T: A = 118.851 Haigis: a0 = 1.2228 (with a1 = 0.4 & a2 = 0.1) Hoffer-Q: pACD = 5.4595 Holladay 1: SF = 1.7064 |
| References | Synthesis <i>CLEAR</i> Preloaded: SIP Synthesis <i>YELLOW</i> Preloaded: SIPY Synthesis <i>CLEAR</i> IOL: SISA Synthesis <i>YELLOW</i> IOL: SISAY |

INJECTION SYSTEMS

| | | Brands | References | Wound-assisted recommended incision | In-the wound recommended incision | In-the-bag recommended incision |
|---|-------------------|---------------------------------|---------------------------------|-------------------------------------|-----------------------------------|---------------------------------|
|  | Preloaded | Medicel Accujet™ PRO 1.6 | LP604550P (box of 10) | 1.6 mm | 1.8 mm | 2.0 mm |
|  | Cartridge loading | Medicel Viscojet™ BIO 1.8 | LP604350C (box of 10) | 1.8 mm | 2.0 mm | 2.2 mm |



SENSE OF EXCELLENCE

SENSE OF INNOVATION

SENSE OF PARTNERSHIP

SENSE OF ETHICS

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