

TRANSFORMING SPECIALTY LENS FITTING

The Eye Surface Profiler (ESP) offers Profilometry of the cornea and the sclera with unprecedented accuracy, helping you find the perfect lens fit faster.

- Fast, single shot measurement process
- Quick return on investment in just a few months
- More than 50 lenses from 30+ labs
- All types of specialty lenses

The future of Specialty Lenses starts with the ESP.



THE BIG OPPORTUNITY

Thanks to Profilometry, it is possible to extract precise information about the shape of the cornea and the conjunctiva/sclera, based on the maps of the ocular surface generated by the ESP.

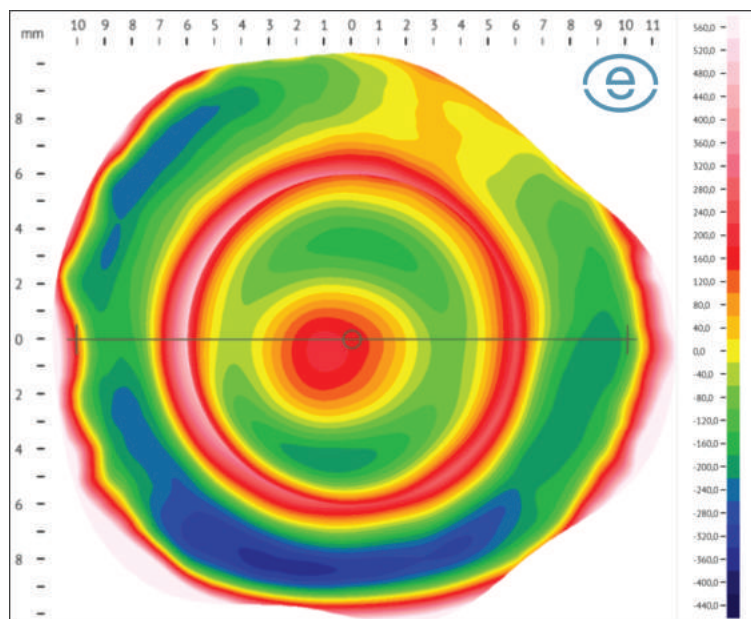


Figure 1 Bi-sphere elevation map

The ESP offers sagittal height, which serves as a guide for defining the vault of the lens on the cornea, as well as helping to determine the level of toricity of the sclera for a good fitting haptic. The software also suggests the first lens for each patient.

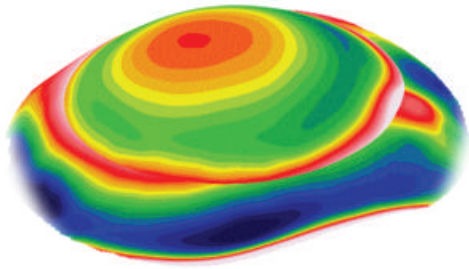
The most effective technology for fitting specialty contact lenses.

CORNEO-SCLERAL TOPOGRAPHY

- ✓ Corneal asymmetry is a poor predictor of the need to fit a scleral lens with toric peripheral geometry in irregular corneas.
- ✓ The sclera is asymmetric: there is a significant difference between the opposite angles of the corneo-scleral junction, greater in the horizontal meridian than in the vertical.
- ✓ Horizontal decentration of the lens is associated with nasal-temporal asymmetry in scleral elevation.

It is now possible to better understand the shape and geometry of the sclera, which is highly relevant for fitting specialty contact lenses.

Corneal and scleral elevation topography provides a more global view of the ocular surface by creating detailed 3D height maps.



Eaglet Eye is focused on all specialty lenses: the ESP handles not only Scleral Lenses, but also OrthoK, Hybrid, Soft and corneal RGP. All can benefit from the ESP data! We are working with all the leading manufacturers and over 50 lens fitting algorithms from more than 30 labs are integrated in the system.

CHARACTERISTICS

- Camera: 1 CMOS IDS
- Projectors: 2
- Data: 500,000 data points
- Scans: Up to 20mm diameter
- Measurement: Fast, single shot, no extrapolation or stitching
- Precision: Cornea: 2 μ | Sclera: 10 μ
- Software: 14 maps, 2 calculators and over 18 parameters

ORTHOKERATOLOGY FITTING WITH PROFIOMETRY

Real topographical data of the peripheral cornea is the cornerstone for achieving first lens fit success. It is the most critical factor for successful lens alignment and lens centration.

The Eye Surface Profiler (ESP) offers the precise limbus-to-limbus topography required for successful OrthoK fitting. Every time you take a follow up ESP measurement, the automatically generated difference maps help you monitor the effectiveness of the treatment (Figure 2).

The ESP has revolutionized the way scleral lenses are fitted. The same precision can now be applied to OrthoK fitting.

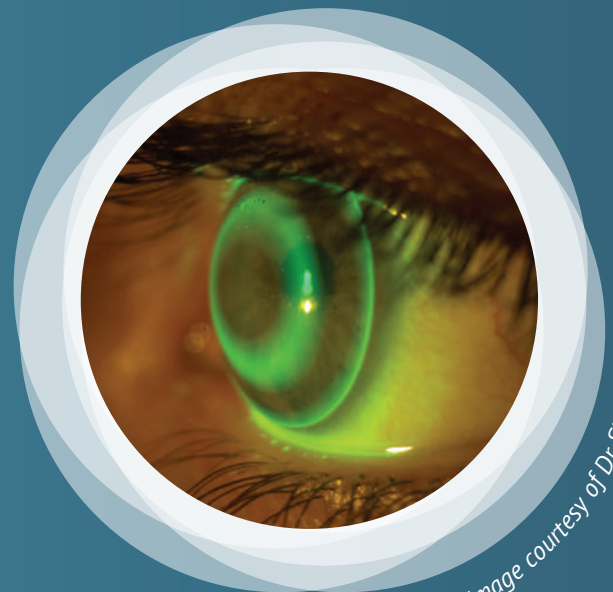


Image courtesy of Dr. Sheila Morrison

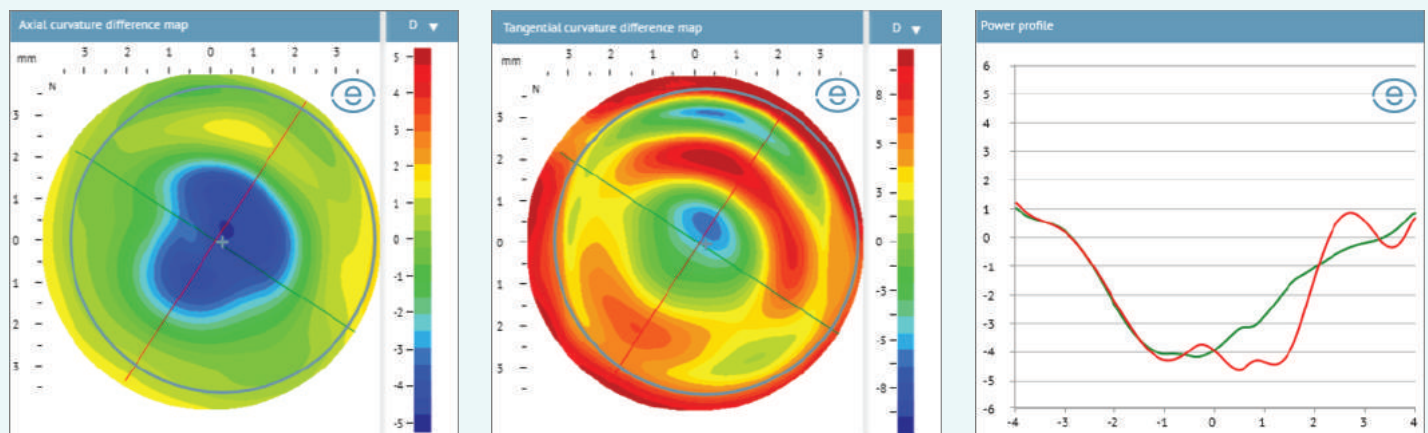


Figure 2 Differential maps of axial and tangential curvature; power profile map.