



SCLERAL CONTACT LENSES



1. **EPSILON SCLERAL**

- Out stands due to multi aspheric variable eccentricity design
- Fitted in two steps due to it's novel philosophy and diagnostic set
- Reassures limbal stem cells function
- Customisable with toric periphery and front toric

EPSILON SCLERAL

The SCLERAL lens design is fitted on any case of ectatic cornea or any case presenting asymmetric astigmatism. Is the ideal solution for anomalous astigmatism when the rest of the lens designs offered by EYEART do not satisfy the patients' expectation or the lids position and tension alter the desired fit.

Points of excellence of EPSILON scleral:

- Ensures functionality of limbal stem cells
- Ensures conjunctival blood vessels flow
- Exceptional multi aspheric design

Available parameters:

Indications: Keratoconus

Asymmetric astigmatism

Keratoplasty

PMD: Symmetric astigmatism sensible to rotation

Dry eye management

Saggital Height: 3900 to 5200 microns

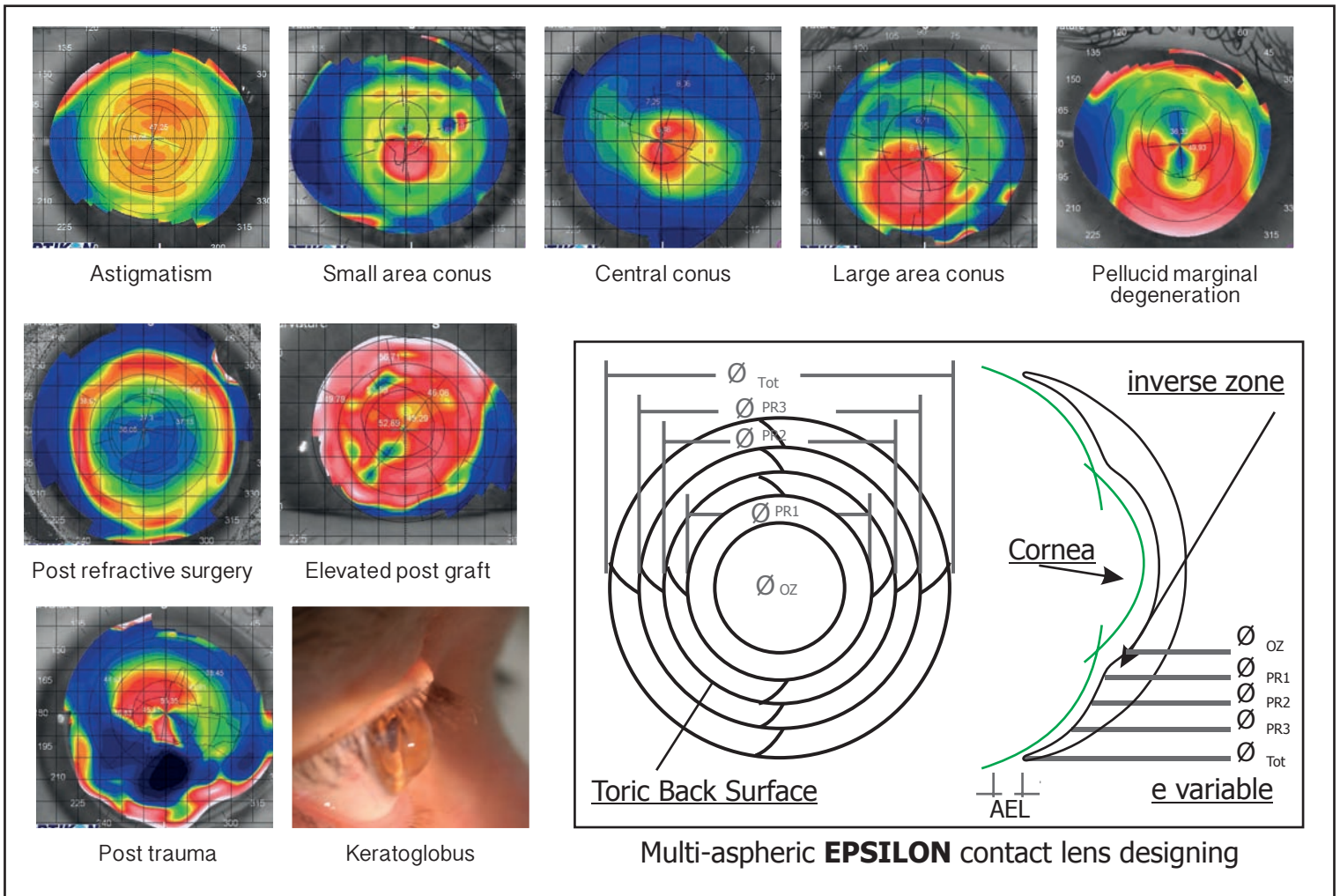
Diopters: +25.00 to -35.00 in 0.25 D

Diameters: 17.00 mm (additional diameters are available)

Geometry: Pentacurve aspheric (Front toric and scleral zone toric are also available)

Material: **BOSTON XO Dk 100**

Scleral lens fitting is known to handle any stabilization issues present with corneal lenses. In addition, due to the stability of the materials used, as well as their stable positioning during use, scleral lenses offer the maximum optical performance.



Astigmatism Small area conus Central conus Large area conus Pellucid marginal degeneration

Post refractive surgery Elevated post graft

Post trauma Keratoglobus

Toric Back Surface **inverse zone** Cornea AEL e variable

Multi-aspheric **EPSILON** contact lens designing

EPSILON SCLERAL BASIC FITTING INSTRUCTIONS

Fitting of Epsilon lenses is performed with the diagnostic set.

DIAGNOSTIC SET CONTENTS:

16 lenses with the same elevation for each gradation letter (e.g. B-M) SAG, but with two alternatives for scleral fitting, M (Medium) and F (Flat). According to the example above, there is also the B-F lens.

DIAGNOSTIC SET STRUCTURE:

								KC/POST SURGERY							
NORMAL															
A		B		C		D		E		F		G		H	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F

FITTING PROTOCOL

STEP 1: The first diagnostic lens is chosen according to the diagram below:

C - M	Normal topography (as in dry eye management) Initial keratoconus Moderate keratoconus of small conical area
D - M	Moderate and advanced keratoconus Non protruding transplant
G - M	Protruded transplanted cornea Keratoglobus

FIT ASSESSMENT

STEP 1:
Corneo limbal region
Adjust letter
elevation A to H.

STEP 2:
Scleral zone
Adjust fit M to F

Corneo limbal region evaluation:

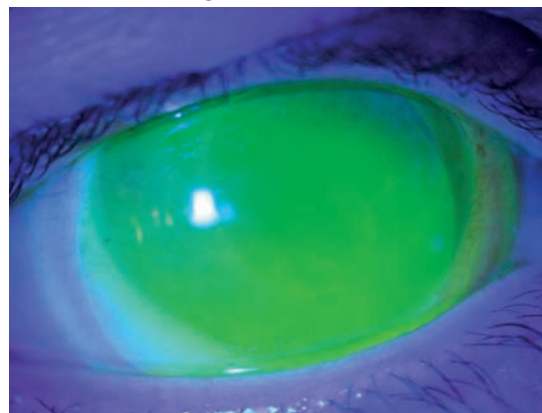


Figure 1
Ideal fluo pattern, as soon as lens inserted.
Iris is seen blurred.

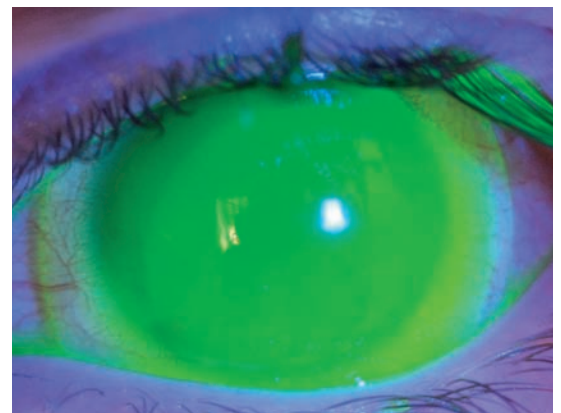


Figure 2
Excessive clearance, change with the previous
letter lens. i.e. If D-M is fitted, change to C-M.
Iris is hardly seen.

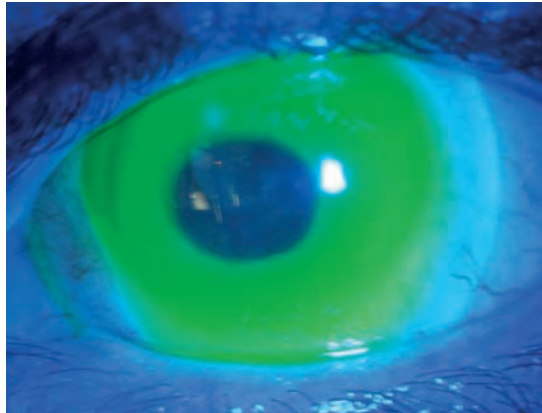


Figure 3
Heavy corneal touch, change with the second more curved lens. i.e.
If C-M is fitted, change to E-M

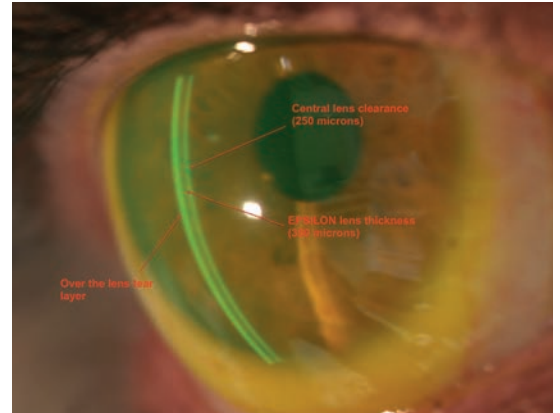


Figure 4
Section clearance evaluation.
EPSILON diagnostic lenses have 350 microns of thickness. Comparing the sections, lens elevation can be estimated

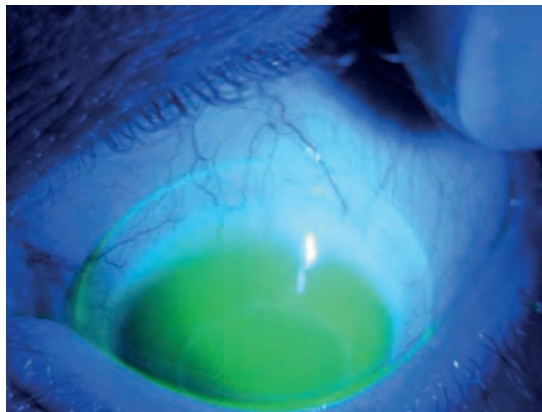


Figure 5
Ideal limbal clearance

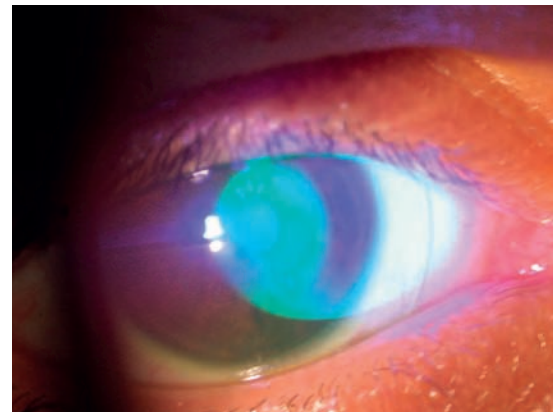


Figure 6
Peripheral and limbal touch.
Rare with EPSILON design

STEP 2: Scleral zone alignment is evaluated:



Figure 7
Ideal scleral zone alignment

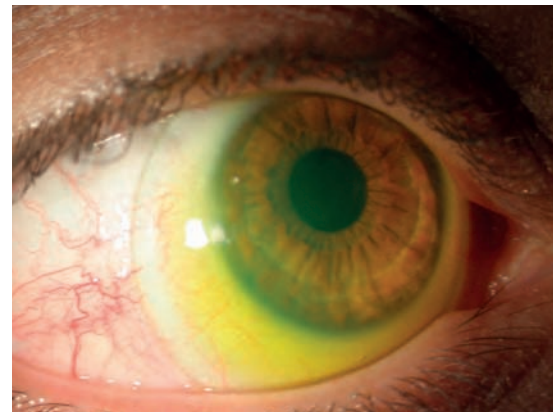


Figure 8
Excessive scleral zone periphery pressure.
Lens with flatter scleral zone has to be fitted

CONFIRMATION: Repeat the above checks after 1-2 hours.

OVER REFRACTION: Perform spherical over refraction
(If vision is not satisfactory, perform spherocylindrical refraction).

LENS ORDER: Order the lens as follows:
i.e. C-M Sph -7.50 D (having calculated the vertex distance of the over refraction and the power of the diagnostic lens).

CUSTOMIZATION:

F.C. (Front cylinder correction) When over refraction yields cylindrical correction, include it in the lens order. The lens will have a dot marking at 6 o'clock position.

T.P. (Toric periphery option) Toric scleral zone design is also available. Contact our technical consultants for this option.

FITTING DETAILS

Key points to be observed:

- Presence of tear film under the whole surface of the lens in the corneal region
- Sufficient tear volume in the corneal limbus region
- Absence of intense imprint in the scleral conjunctiva after lens removal
- Absence of pressure (absence of fluorescein) in the corneal region (meaning a "flat" central region)
- Absence of air bubble in the corneal region (a bubble could mean excessive clearance or mistaken insertion)
- Absence of intense "whitening" in the lens periphery over the sclera (intense "whitening" means steep scleral zone)
- The insertion is performed after the instillation of preservative-free saline at the curved part of the lens
- Well-trained user in the use of scleral lenses