Gelflex

Australian contact lenses

PROFESSIONAL
FITTING GUIDE

LIMBAL LIFT LENSES

📞 (03) 9792 3127 · 1800 335 559

📠 (03) 9793 1635

✉ orders@gelflex.com

🔗 www.gelflex.com

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This unique lens design is based on the philosophy of maximum support over the corneal surface, combined with the lens vaulting over the limbus, but without sclera support. Therefore, this non-contact of the limbus and sclera stops the lens from sealing off and becoming adhered to the eye. This means that stem cell growth in this area is not affected, which is a concern with larger scleral lenses.

These large diameter RGP lenses, normally 13.0 mm, are designed to give good centration and superior comfort. The lenses are manufactured from Boston XO or XO2 material resulting in a high DK and therefore excellent oxygen transfer.

CHOICE
- The *E Series* are for normal eyes, standard grafts where the host cornea and graft button are well matched, pellucid marginal degeneration, high powers (both plus and minus), and low sagging keratoconics.

- The *K Series* are for more advanced Keratoconic patients, however highly advanced cones may not be suitable if the corneal load cannot be spread sufficiently.

- The *G Series* is for advances or proud grafts that are a lot steeper or flatter than the host cornea.

BASE CURVE
The fitting of the central portion of the lens is the same as a standard rigid lens with a fluorescein pattern showing a slightly flatter type of alignment fit for the E Series and G Series, with a slightly flat 3 point touch for the K Series. it is important to check the fluorescein pattern shows the alignment of the base curve slowly changing to clearance and not steepening at the edge of the support area.

DIAMETER SELECTION
The diameter of the lens is important and needs to be 1.5 to 2.0 mm larger than the cornea. This gives limbal coverage of .75 to 1.00mm. It is important not to have more than 1.00mm coverage of the limbus as the lens may contact the sclera causing the lens to seal off.

The peripheral area of the lens will show fluorescein clearance out to the very edge. This gives a cushion of tears around the lens and with the edge of the lens under the lids, gives an extremely comfortable fit – as comfortable as a soft lens.

Due to the large diameter these lenses do not move as a standard rigid lens but tend to rock on the cornea giving a tear exchange from a pumping action. The slightly flat fitting is required on all thee (E, K & G) design lenses, because any central pool will cause tear stagnation and discomfort.

Due to the lens rocking and not moving up and down, slightly flat fitting of Keratoconus is not a problem as it does not cause staining like a normal small lens with more movement.

QUADRANT ZONING
To reduce the amount of excessive clearance on the lower portion of the lens it is possible to order a Quadrant Zone on Limbal Lift lenses. It is important not to remove all clearance, just the excess, as the lenses still need to be able to rock. The following is an example of E Series with Quadrant Zoning: If the periphery of the lens is ideal on the top 3 quadrants with E5 for the edge profile, but there is excessive clearance at 6 o'clock, then you would order: -E5* E5* E5* E2. The lens will automatically spin itself around until the steeper section of the lens matches the cornea.
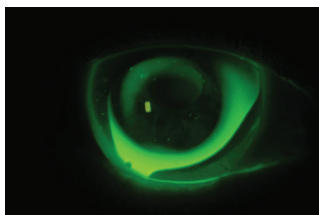

Before Quadrant Zoning.
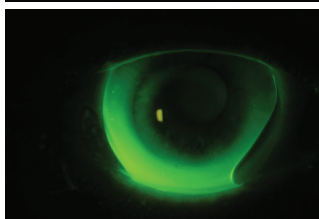
*After Quadrant Zoning.*

LIMBAL CLEARANCE
The clearance should be evaluated in the horizontal meridian to ensure that the lens edge is not touching the sclera. The lower edge must have a bubble or bubbles to enable the lens to be increased by ordering E7 or K9 to give more clearance. To reduce the edge clearance order E3 or 5. Changing these values by + or - 2 is enough to give a noticeable amount of change. Other values are available including zero or negative values which are usually for extremely distorted corneas e.g. cornea grafts.
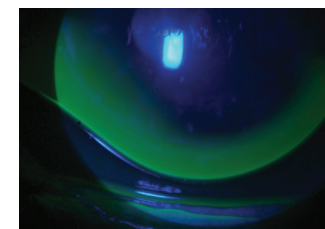
Slightly flat central fitting with excessive edge clearance.
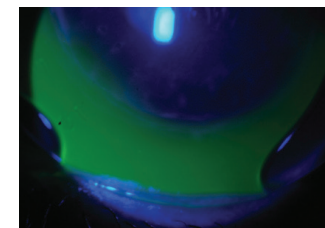
Good central alignment with correct edge clearance.
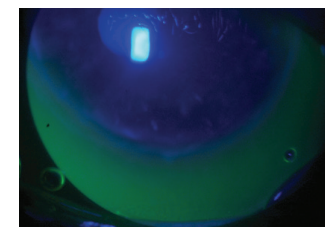
Steep central fitting and too tight in the edge which will stop tear exchange.

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