

SEED®

Supporting Your Vision with
Japanese Quality



RGP LENS

Presentation flow

1. UV-1 (RGP) features
2. Lens Design
3. Lens Materials
4. Fitting Guides

Features

- Cutting Harmful UV Rays

SEED UV-1 has been added an ultraviolet (UV) absorber for cutting harmful effects of exposure to UV radiation.

It blocks at least 87% UV-A and 98% UV-B radiation.

Offering the most protection to your eyes.

Cut Harmful Effects of Exposure to UV Radiation

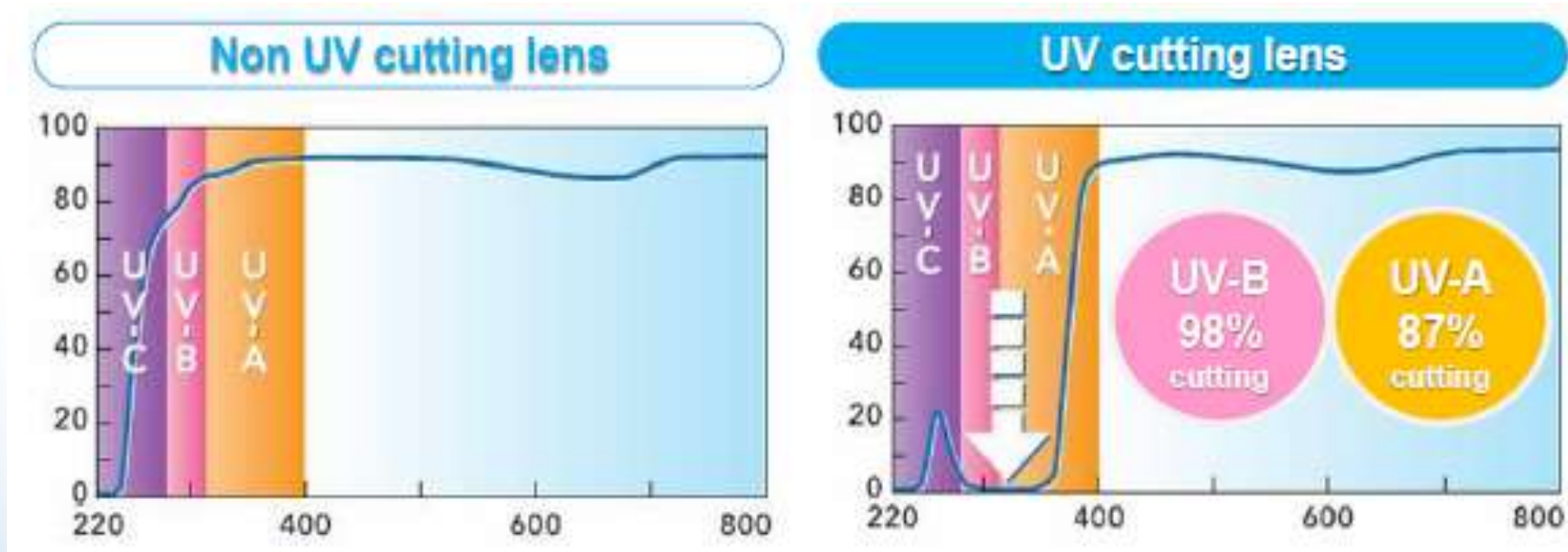
Ultraviolet (UV) Rays



UV-C	Completely absorbed by the ozone layer and atmosphere.
UV-B	Mostly absorbed by the ozone layer, but some does reach the Earth's surface.
UV-A	Not absorbed by the ozone layer.

Cut Harmful Effects of Exposure to UV Radiation

Light Transmittance Spectrum

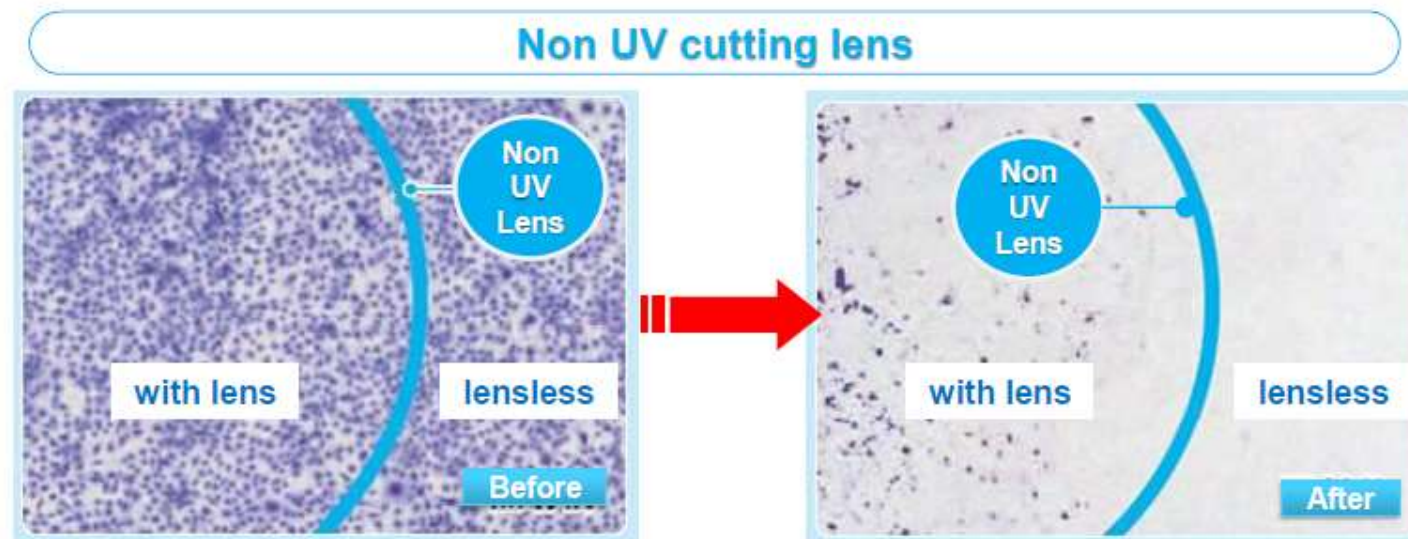


SEED UV-1
blocks
98% UV-B and
87% UV-A

Cut Harmful Effects of Exposure to UV Radiation

Ultraviolet Ray Experiment

The purple part shows our corneal epithelial cells.
And we expose to UV.



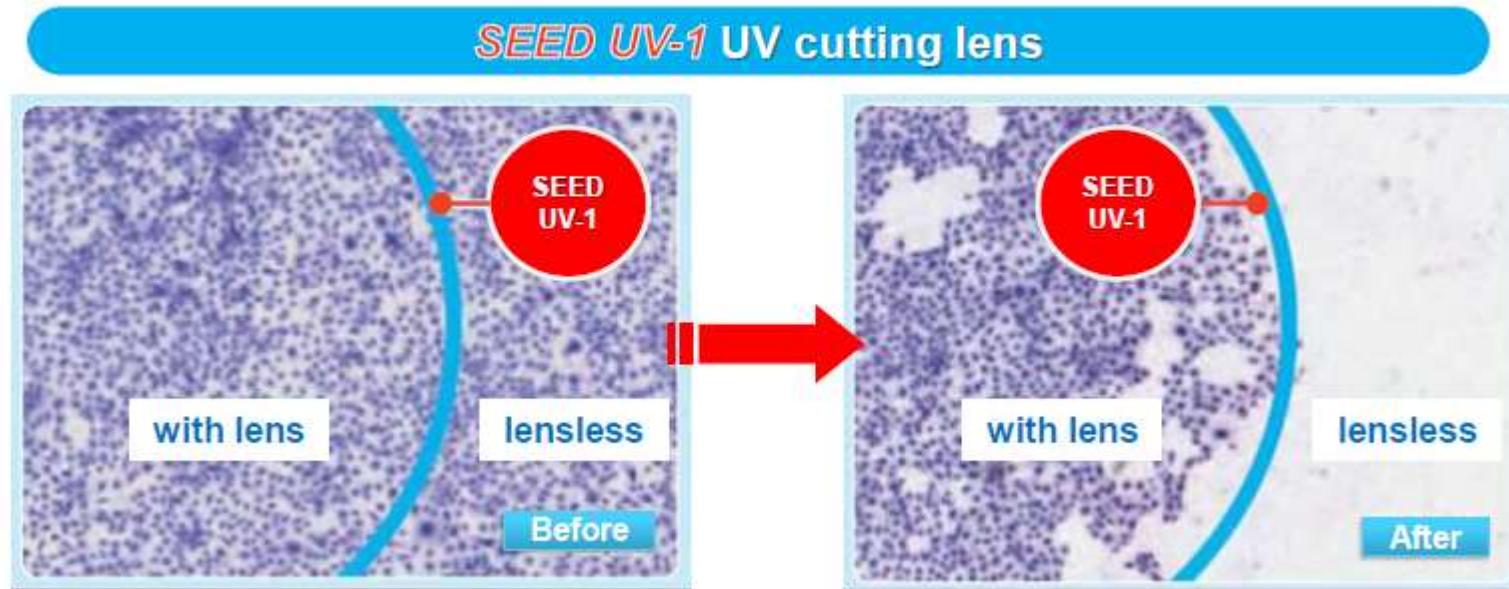
RESULT :

The cells of the lensless part almost perishes
Few cells still survives in the with lens portion.

Cut Harmful Effects of Exposure to UV Radiation

Ultraviolet Ray Experiment

The epithelial cells is covered with Seed UV-1.

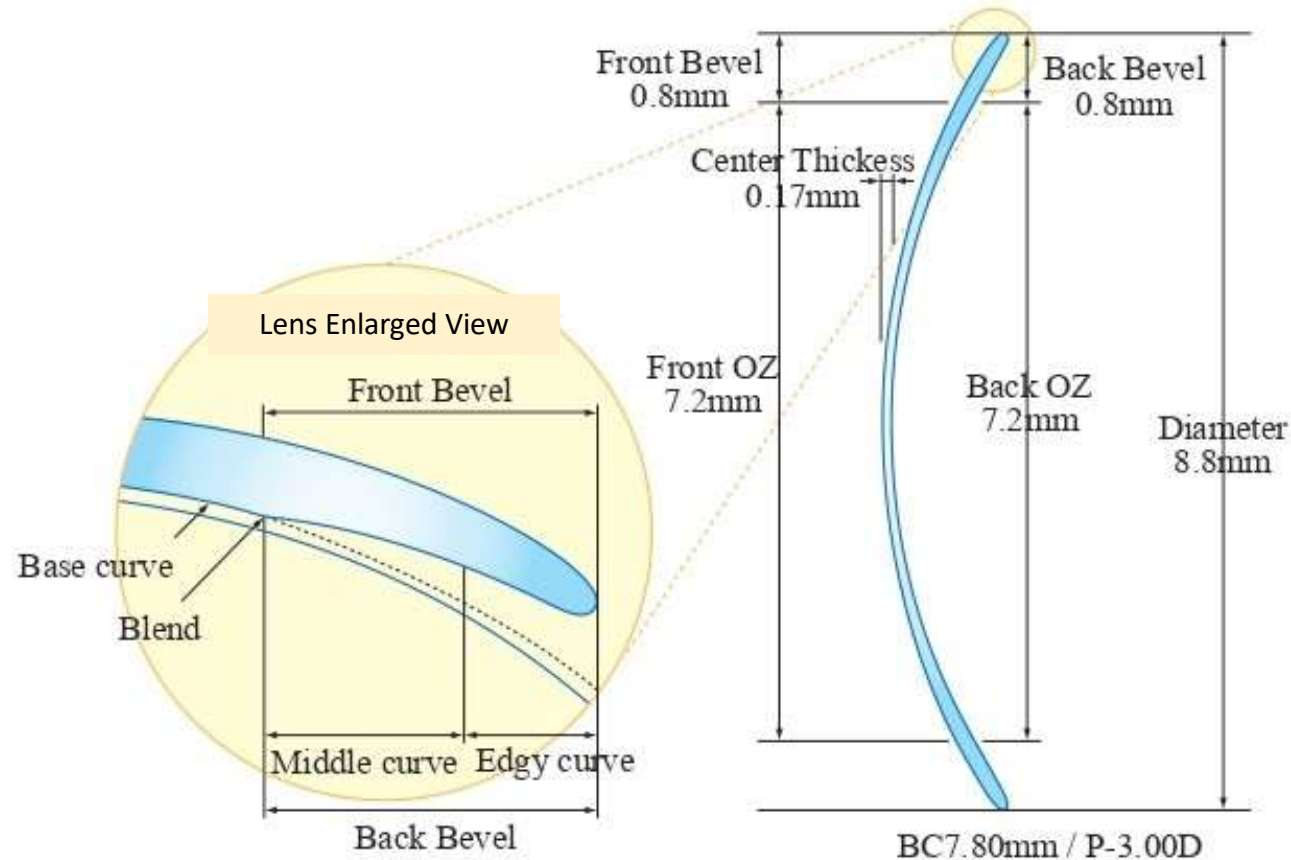


RESULT :

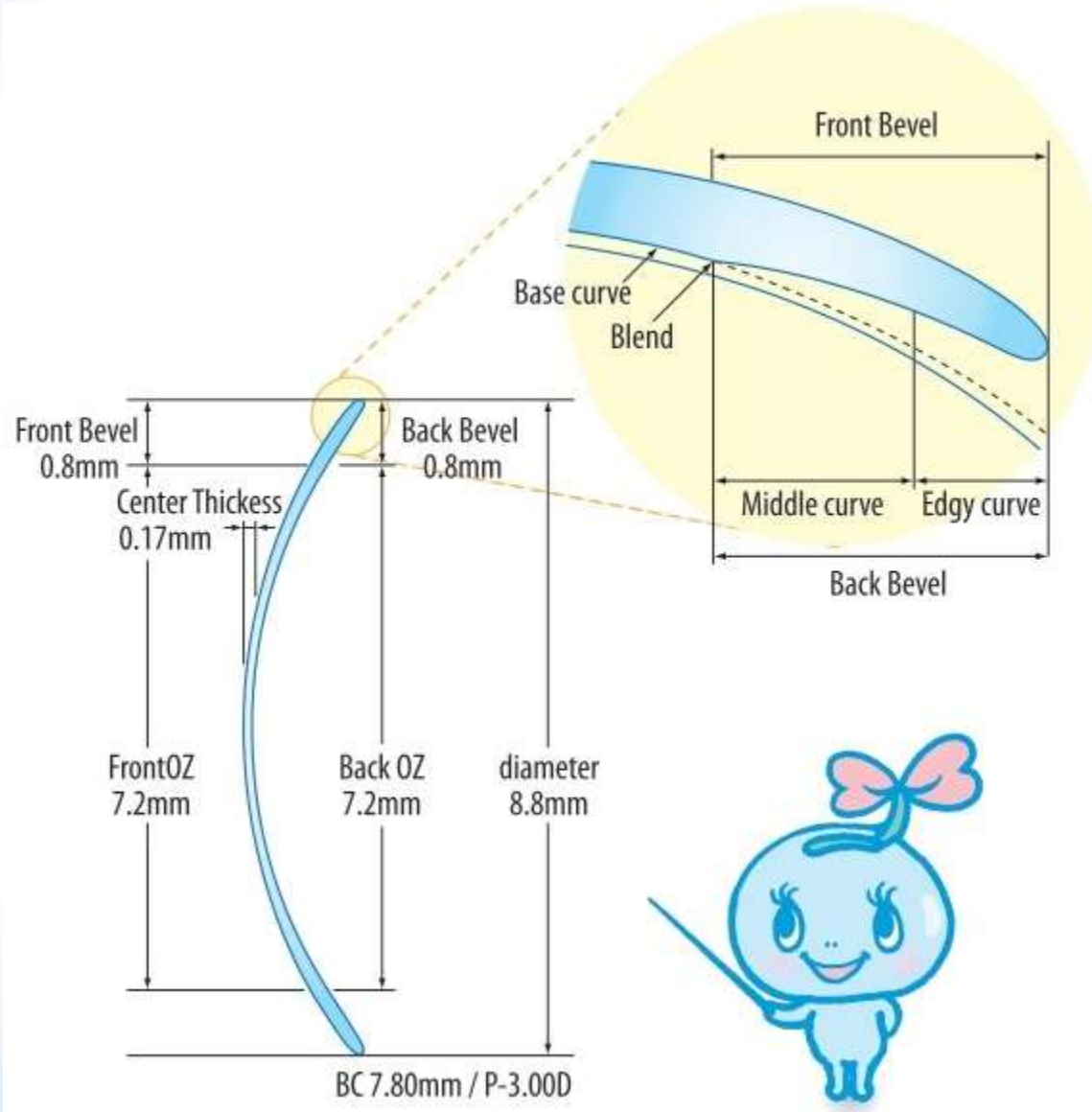
The cells covered by SEED UV-1 almost survived.

SEED Own Design

- Bevel curve of lens is divided into two steps that makes lens ultra-smooth, so every blink feels most like you're not wearing contacts. Giving you comfort.
- Floating bevel can help tear circulation and keep your eyes comfortable all day long.



SEED Own Design

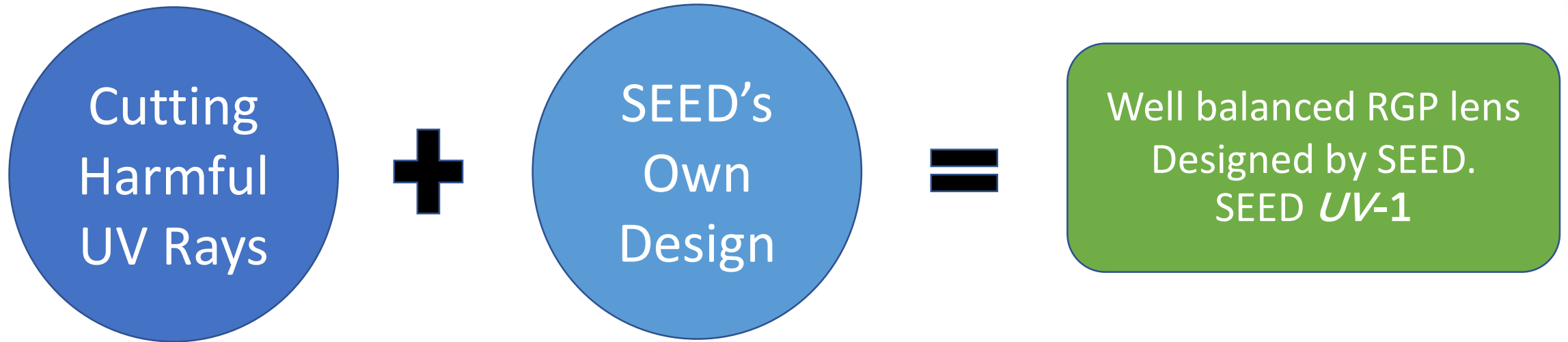


Comfort and Relief in one lens

For the health of your eyes, we stick to lens' breathability, a comfortable fit, and thorough protection from ultraviolet rays.

SEED UV-1 is a well balance RGP lens designed by SEED.





SEED UV-1

Base Curve	Diameter
5.00mm ~ 5.45mm (0.05mm step)	7.50mm only
5.50mm ~ 5.95mm (0.05mm step)	7.50mm ~ 8.20mm (0.10mm step)
6.00mm ~ 9.00mm (0.05mm step)	7.50mm ~ 10.0mm (0.10mm step)
Power Range	+ 25.00D ~ -25.00D (0.25D step)
Oxygen Transmittance (*Dk value)	$60 \times 10^{-11} (\text{cm}^2/\text{sec}) \cdot [\text{mLO}_2 / (\text{mLxmmHg})]$
Centre thickness	0.17mm @ (-3.00D)
Lens Color	Blue
Lens Materials	methacrylate compound containing silicon, methacrylate compound containing fluorine, MAA, MMA, EGDMA
Lens Marking	U1

Trial Set

<u>BC</u>	<u>Power</u>	<u>Diameter</u>
7.00	-3.00	8.8
7.10	-3.00	8.8
7.20	-3.00	8.8
7.30	-3.00	8.8
7.40	-3.00	8.8
7.45	-3.00	8.8
7.50	-3.00	8.8
7.55	-3.00	8.8
7.60	-3.00	8.8
7.65	-3.00	8.8
7.70	-3.00	8.8
7.75	-3.00	8.8

<u>BC</u>	<u>Power</u>	<u>Diameter</u>
7.80	-3.00	8.8
7.85	-3.00	8.8
7.90	-3.00	8.8
7.95	-3.00	8.8
8.00	-3.00	8.8
8.05	-3.00	8.8
8.10	-3.00	8.8
8.15	-3.00	8.8
8.20	-3.00	8.8
8.25	-3.00	8.8
8.30	-3.00	8.8
8.40	-3.00	8.8
8.50	-3.00	8.8

Total : 25 pcs

Fitting Guides of RGP

Initial Measurements

Examination of the anterior segment

Tear film assessment: tear prism (0.2-0.4mm at centre), TBUT

Pupil diameter / size – should be measured in normal and ambient light. BOZD should be greater (1mm) than largest pupil diameter.

Horizontal Visible Iris Diameter (HVID) – total lens diameter should be 1.5 – 2mm less than HVID

Visible Palpebral Aperture – lens too large may induce lid attachment, lid too far from limbus may induce lens drooping too low.

Fitting Guides : slit lamp examination

Static Assessment

★ How lens aligns to the cornea

★ With normal lid position, the lens should not overlap the limbus.

★ Alignment Pattern

Dynamic Assessment

★ Centration and movement

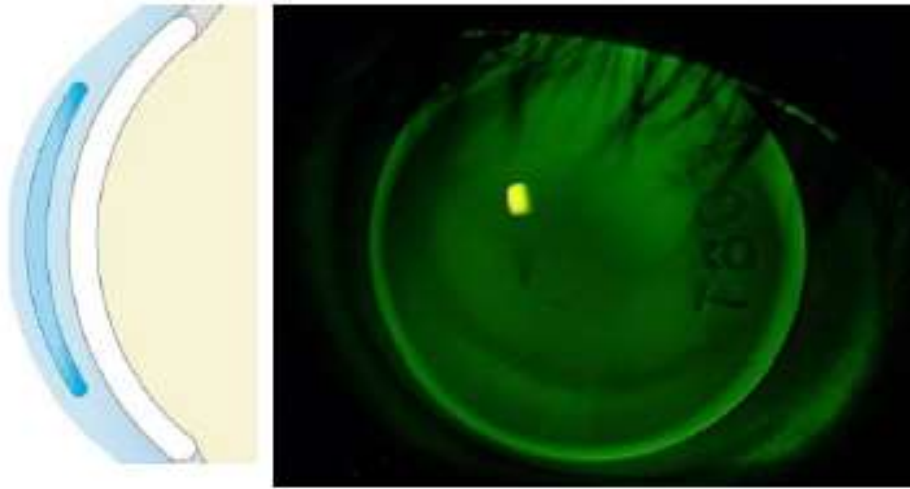
★ The lens should remain on the cornea during all gaze position.

★

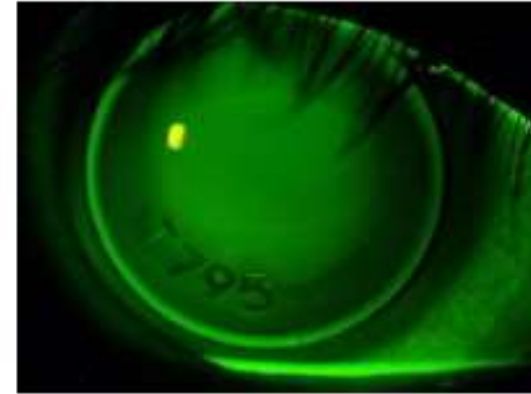
- When the lids are held apart, the lens slowly decenter downwards.

Fitting Guides

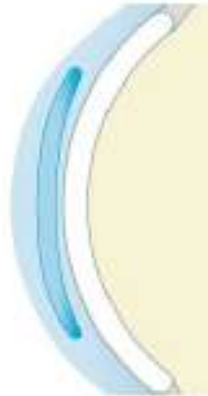
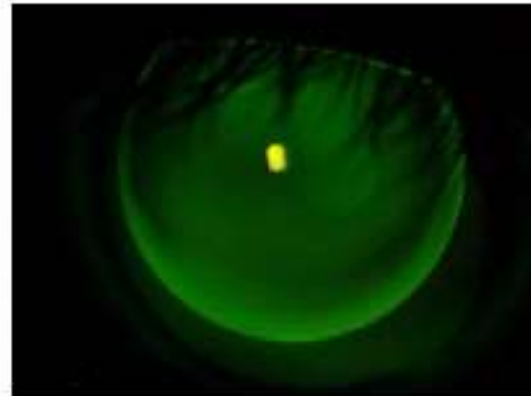
Ideal Fit



Steep pattern



Flat pattern



Fitting Guides

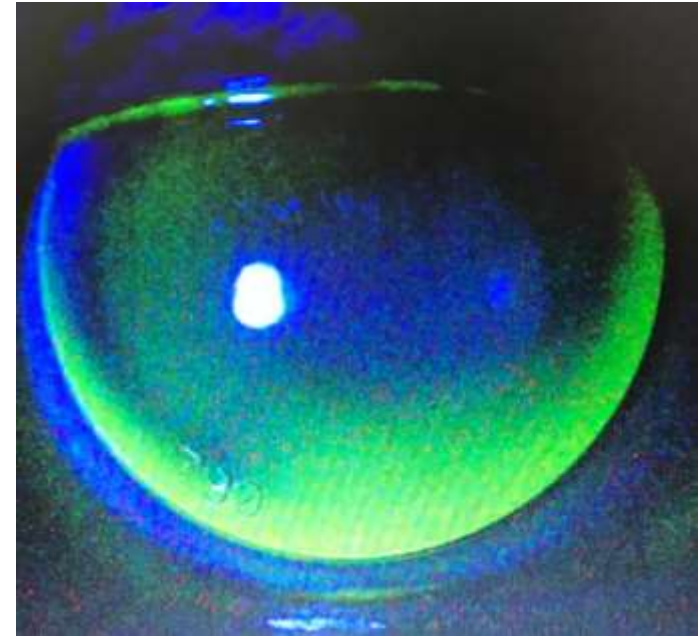
Ideal RGP Fit

- ☐ Slight apical clearance
- ☐ Mid peripheral touch
- ☐ Narrow band edge clearance at the periphery to enable tear exchange.
- ☐ 1.0-1.5mm smooth vertical movement with each blink, enable metabolic, tear debris removal and tear oxygen exchange.
- ☐ Stable vision and less lens sensation.

Fitting Guides

Flat Fit Characteristic

- ☐ Dark apical touch (due to absence of fluorescein)
- ☐ Very broad edge clearance
- ☐ Excessive movement on blinking
- ☐ Poor lens comfort, inconsistent vision
- ☐ Excessive tearing even after adaptation



Fitting Guides

Steep Fit Characteristic

- ❑ Central pooling beneath the lens (due to excessive of fluorescein), may trap bubble.
- ❑ Minimal edge clearance.
- ❑ Movement is static and sluggish.
- ❑ Minimal lens sensation may be reported.
- ❑ Possible corneal epithelial indentation, by the edge of the lens



THANK YOU

SEED

「見える」をサポートします