



SEIKO

A New Day is Dawning

Succeed
Internal Free-Form™

100% Back Surface Progressive Lenses

1.67, 1.60, Poly, 1.50

Clear, Polarized and
Transitions® Lenses

Transitions®

Patented 100% back surface design technology

- The patient's entire prescription is three-dimensionally fused onto the back surface of the lens. This eliminates front-curve distortion providing total control of marginal astigmatism and power error
- True, customized Rx-specific aspheric power compensation in the progressive channel results in billions of optically precise prescriptions
- Visual fields are significantly expanded, with consistently wide near vision



Introducing Seiko's groundbreaking new Succeed Internal Free-Form™ progressive addition lenses. Succeed is made using a patented, technologically advanced design that puts the patient's entire prescription onto the back surface of the lens. This offers tremendous advantages over conventional front-surface progressive designs.

To begin with, the magnification difference between the visual areas on the lens is greatly reduced. On a conventional progressive lens, distortion is mainly caused by the shape changes of the front curve and also by power changes on the back. Succeed's front surface is a perfect sphere, which totally eliminates distortion due to front surface shape changes (Fig A). This results in a considerable reduction in size and skew distortion, virtually eliminating image sway & swim (Fig B).

Secondly, by placing the progressive surface on the back of the lens, it is closer to the eye. This considerably expands all fields of view (distance, intermediate and near). The larger fields of vision provide better image stability, greatly exceeding the limitations of front side progressive lenses (Fig C).

In conventional PAL designs any particular base curve covers a wide range of powers. Consequently, each

base curve is optimized only for a specific spherical Rx at the center of its range. Good visual acuity is therefore only effective somewhere in the middle of the entire recommended range for each base curve. This affects the reading area the most, due to the fact that it is "off-center," meaning that power error and unwanted astigmatism are induced and automatically present. Therefore, optics are compromised by these naturally occurring primary aberrations in all prescriptions that fall outside this narrow band.

The Seiko Succeed Internal Free-Form design fuses toric and progressive surfaces into one complex curve. Aspheric compensation is customized in the progressive channel based on the patient's complete Rx. This compensation specifically takes into consideration each sphere, cylinder, axis, prism and add power combination. Succeed Internal Free-Form has billions of unique Rx combinations (considering each sphere, cylinder, axis, prism and add), all of them exact. A conventional PAL, on the other hand can have, strictly speaking, only one optically precise Rx per base curve and add combination (generally around 65 total).

With the Succeed Internal Free-Form, there is total control of off-center astigmatism and power error. This provides several benefits in the lens. First, the lens has accurate power throughout the expanded reading area. On conventional PALs, where the progressive power is on the front surface, prism is the only non-Rx tool available for improving near vision. Using prism provides only a small amount of near vision improvement, while creating other trade-offs in the lens. However, with the Succeed Internal Free-Form, there is aspheric power control in the corridor, along the entire principle meridian. This

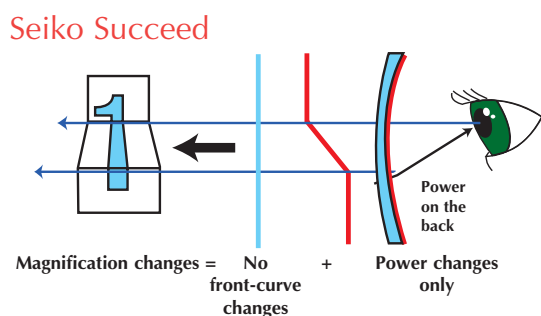
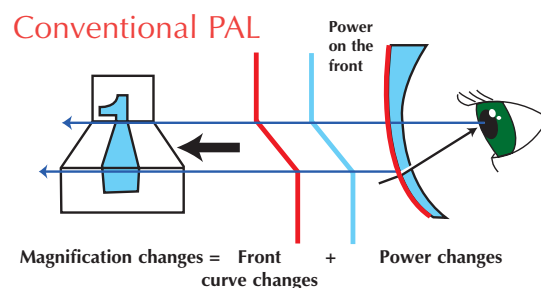


Fig. A. The main distortion in PAL lenses is the result of changes in front surface curvature. Succeed has a perfect sphere on the front surface that does not contribute to distortion.

compensates for both changes in vertex distance and the degree of visual axis (rotation) as the eye focuses from distance to near. This results in gradient cylinder control within the corridor to vastly improve intermediate vision. Finally, the lens provides distortion-free distance vision. At a prescription of Plano with a +3.00 add, the Succeed Internal Free-Form contains 30% less distortion with a 20% wider visual field. The lens provides an exact Rx for distance, intermediate and near (Fig D), and improves image stability. Patient accommodation is automatic, as each lens is truly prescription-specific. After a decade of global distribution, the wearer success rate is over 99 percent.

The Succeed Internal Free-Form is available in 1.67, 1.60, poly and 1.50 index, with a variety of coatings, including clear, polarized and Transitions lenses. Seiko Succeed Internal Free-Form lenses are compatible with high-quality aftermarket anti-reflective (AR) coatings.

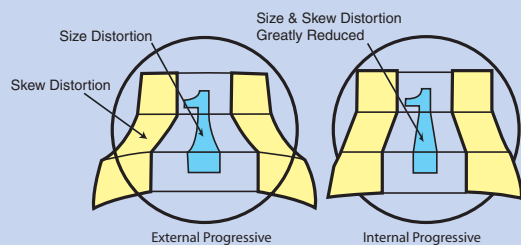


Fig B. A back-surface progressive lens has significantly less size and skew distortion.

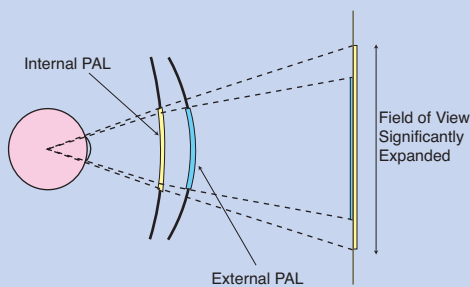


Fig. C. Succeed Internal Free-Form lenses provide wider fields of view in all visual areas—distance, intermediate and near.

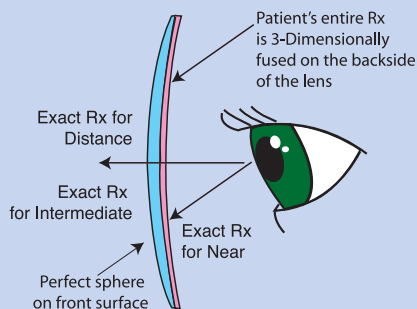


Fig. D. A true, customized lens can now be made with an exact Rx for distance, an exact Rx for intermediate and an exact Rx for near.

Succeed Quick Facts

Seiko Succeed Internal Free-Form is a new, innovative progressive lens product line that features Seiko Epson's patented 100% back surface design technology. Seiko has been selling internal PAL lenses in the world market for over a decade, and now Succeed lenses—with the latest design advancements—are available in the U.S. marketplace.

Succeed lenses are designed for people who appreciate wide distance vision and who require the widest reading and intermediate areas. They are the perfect first pair of progressive lenses, and ideal for replacement or for patients sensitive to the swim and sway of regular progressive lenses.

Succeed owes its success to its exclusive design, which fuses the patient's entire prescription onto the back surface of the lens. This complex surface gives accurate power throughout the reading area, provides gradient cylinder control along the entire intermediate area, and has a significantly wider, distortion-free distance vision area.

Technically, the lens provides for total control of marginal astigmatism and power error through aspheric compensation for each Rx. This means for each sphere, cylinder, axis, prism and add power, the patient receives a truly customized lens with an exact Rx for near, an exact Rx for intermediate, and an exact Rx for distance.

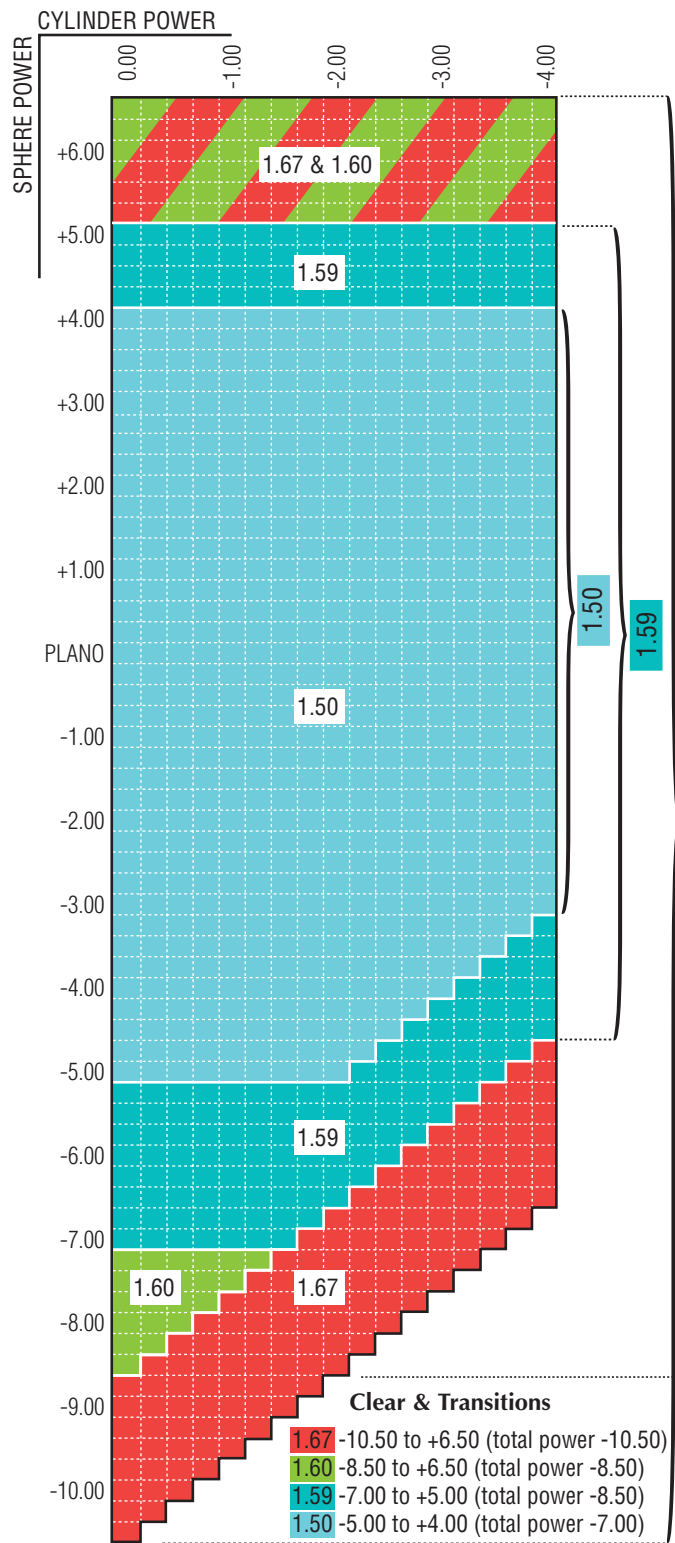
Succeed is as easy to fit as a conventional progressive lens. You need a monocular PD while ensuring proper lens height. Be sure to always **verify the lens cut-out on every Rx using the Succeed Fitting Guide.**

Product Matrix	1.67	1.60	POLY	1.50
Transitions Gray	●		●	●
Polarized	●			●
Clear Hardcoat	●	●	●	●
Clear Uncoated	●	●		●

Corridor/Minimum Fitting Height: 13mm/17mm
15mm/19mm

Clear & Transitions Production Range: -10.50 to +6.50 in 1.67 index, -8.50 to +6.50 in 1.60 index, -7.00 to +5.00 in 1.59 index, and -5.00 to +4.00 in 1.50 index.

Adds for all powers: +0.50 to +3.50, in 0.25 steps.



Specifications

Succeed Internal Free-Form

Lens Design: 100% back surface design technology

Corridor: 13 and 15mm lengths available

Adds: 0.50 to 3.50 (in 0.25 steps)

Prism: Up to 3.00 diopters

1.67 Index

Material: Super High Index MR-10 Resin¹

Availability: Clear, Transitions (gray), Polarized*

Range: -10.50 to +6.50, out to -4.00 cyl (total -10.50)

Strength: Ideal for drill mounting¹

Softening Point: Less heat sensitive¹

Refractive Index: 1.67

Specific Gravity: 1.36g/cm³

Abbe: 32

UV Protection: 100% UV-A & UV-B

1.60 Index

Material: High Index Resin

Availability: Clear

Range: -8.50 to +6.50, out -4.00 cyl (total -8.50)

Refractive Index: 1.60

Specific Gravity: 1.30g/cm³

Abbe: 42

UV Protection: 100% UV-A & UV-B

1.59 Index

Material: Polycarbonate

Availability: Clear & Transitions (gray)

Range: -7.00 to +5.00, out to -4.00 cyl (total -8.50)

Refractive Index: 1.59

Specific Gravity: 1.20g/cm³

Abbe: 30

UV Cutoff: 380nm

1.50 Index

Material: Plastic

Availability: Clear, Transitions (gray), Polarized*

Range: -5.00 to +4.00, out to -4.00 cyl (total -7.00)

Refractive Index: 1.50

Specific Gravity: 1.32g/cm³

Abbe: 58

UV Cutoff: 360nm

¹ More stable, less heat sensitive and easier to process than conventional (MR-7) resin. **Tensile Strength:** 50% stronger than polycarbonate; Three times stronger than plastic **Flexural Strength:** Twice that of polycarbonate.

* Polarized available May 2007

Transitions®

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www.seikoeyewear.com

For more information, contact your authorized Seiko Distributor or Seiko Optical Products of America, Inc.
1-800-235-5367