WRAP FRAMES HAVE BECOME A FASHION STATEMENT AND A TOP-SELLER IN EYEWEAR

Shamir Insight, Inc. was the first lens company to recognize this trend and the necessity to maintain the look and the integrity of the frame. Shamir developed the Attitude® series of progressive lenses designed to give optimum visual performance and maintain the integrity of the wrap-around frame. Attitude® offers exceptionally wide distance AND near zones; a design combination previously unachievable with wrap progressives.

a. Piccolo® Attitude® Polycarbonate Polarized

b. Piccolo® Attitude® Polycarbonate Clear

The Attitude® family of lenses are designed with an 8.00 base front curve to match the curvature of the wrap frames. They are designed to accommodate prescriptions between a -4.00 to a +2.00 using Shamir's EyePoint Technology®.

Wrap frames are chosen for the style and fit. Due to their steeper curves allowing them to fit closely to the face, wrap frames provide ocular protection from the front *and* sides of the lenses from such damaging effects as UV exposure and dangerous objects. Likewise, due to the contours of the lens, Attitude® enhances vision and comfort for dry eye patients by shielding the eyes from wind exposure. This style of frame also offers more protection from the sun and harmful UV Rays. Fashion-conscious customers expect the frame to look and fit the same way with their RX as it did with the demo lenses. Shamir recognized this need and the Attitude® lens meets this criteria.

"Managing a lab for a high end retailer, I processed many wrap frames. When the Attitude® lenses were introduced I immediately started using them. I enjoyed great success in the fit of the frame, customer satisfaction, the look and the visual performance." - Jerry Thornhill.

Mounting Attitude® lenses in metal frames is fairly easy since the frames are rigid and the eyewires are not too thick. Attitude® lenses mounted in a plastic frame are more complex. The design of Shamir Attitude® lenses makes it easier to comply with the customer's requests. Whether you are processing an Attitude® progressive or single vision, it requires more skill to edge, mount and ensure that the lenses will not pop out of a plastic wrap frame.

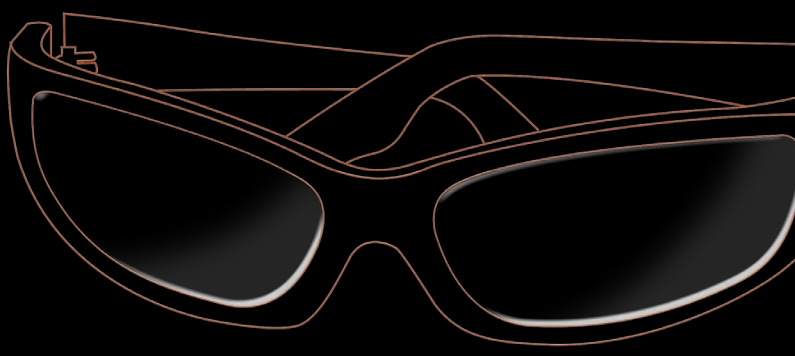
SHAMIR ATTITUDE®

Reasons a lens might "pop out of the frames":

1. Tracing: when tracing 8 Base or wrap frames there is a tendency for the A measurement to be too long, making the B measurement short. It is sometimes necessary to make a pattern and trace the pattern to get a good fit. Make sure of a good fit with an 8 Base Plano lens.

2. Frame construction: frames are molded flat, heated, then formed to create a wrap frame. The thickness of the plastic will create problems, especially on minus lenses. The edge of the lens will be riding against the inside temporal edge of the frame and, depending on the power, the nasal edge. The bevel must be altered to relieve these stress points.

3. Frames that have a narrow B measurement cause lenses with minus corrections to be thin both in the center and on the edge in the 90th meridian. This thickness difference between the 180th and 90th meridian creates flexing of the lens. This flexing causes two problems; first the lens will pop out of the frame, second this flexing will create a crazing of the hard coat. Increasing the center thickness will help eliminate this flexing. Also, pressure created by the edges of the lens against the edge of the frame will induce stress and flexing.



Overcoming the challenges of wrap frames

When coupled with an impact-resistant material, such as polycarbonate, wrap eyewear provides even more protection from potential ocular injuries as well as excessive UV exposure. Wrap frame styles are at the height of popularity with today's consumer's, however, these styles pose unique optical challenges for patients, practices, and laboratories alike due to their steep base curves and the fitting differences between wraps and standard frames.

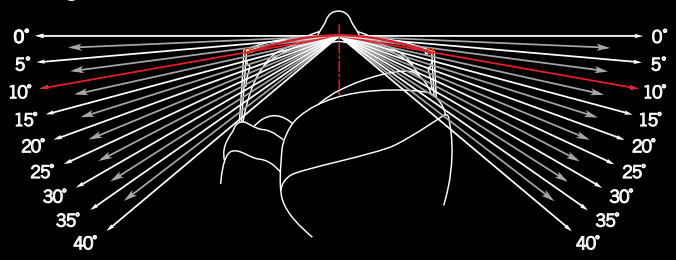
Standard frames are dispensed with an average pantoscopic tilt of 9 degrees, a vertex distance of approximately 14mm, and at least a slight degree of panoramic or "face-form" angle. Conversely, wrap frames have a much steeper panoramic or "face-form" angle (18 to 25 degrees) and are often dispensed with a vertex distance closer than 14mm, as well as an increased degree of pantoscopic tilt.

Because of the fitting differences between wraps and standard frames, progressive wearers may encounter distinctive visual problems when combining a conventional/front-side molded progressive design with a wrap-around frame. Patients fitted with such spectacles may experience: 1) excessive cylindrical power distortions in the peripheral areas of the lenses and, 2) spherical power errors in the line of sight. These spherical and cylindrical optical errors prove to be troublesome for anyone wearing wrap eyewear, whether they are athletes or fashion-conscious patients.

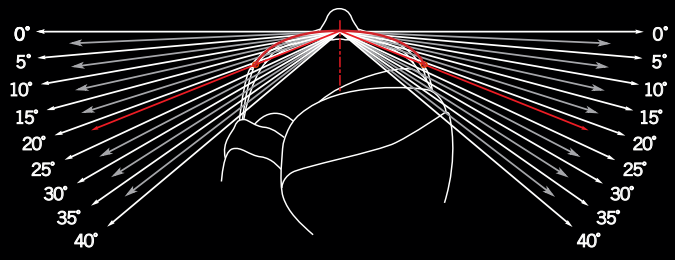
Likewise, base curves play an important role when it comes to the differences between standard eyewear and wrap-around frame styles. Standard frames incorporate flatter front curves while wrap frames require steeper base curves which allows the lenses to closely follow the contours of the wearer's ocular and temporal anatomy. Most wrap frames have a steep profile and require 8 base lenses to securely mount into these styles.

Panoramic Angle

The angle of the frame.



STANDARD
Frame angle: 10°



WRAP
Frame angle: 22.5°

ReCreating Perfect Vision®

Shamir

SINGLE VISION
POLY POLARIZED 1.59 (GRAY)

Prescription Range
Sphere: -4.00[D] to +2.00[D]
Cylinder: up to -4.00[D]

Nominal Base	True Base 1.530	Base Radius (mm)	Sag 50mm*	Concave Curve	Ct (mm)	Et (mm)	Diameter	Add Powers	Power Range
8.00	8.29	63.93	5.09	9.50	10.85	13.1	76	N/A	-4.00 to +2.00

*Do not sag! Use printed sag values for power calculations only. Minimum center thickness for surfacing: 1.2mm

Material Data:

Index Nd	1.586
Abbe Value Nd	30.0
Density gr/cm³	1.20

16MM
POLY 1.59

Prescription Range
Sphere: -4.00[D] to +2.00[D]
Cylinder: up to -4.00[D]

8.00	8.00	66.25	4.90	9.50	8.9	9.2	76/81	1.00 - 3.00	-4.00 to +2.00

*Do not sag! Use printed sag values for power calculations only. Minimum center thickness for surfacing: 1.5mm

Index Nd	1.586
Abbe Value Nd	30.0
Density gr/cm³	1.20

16MM
POLY POLARIZED 1.59 (GRAY/BROWN)

Prescription Range
Sphere: -4.00[D] to +2.00[D]
Cylinder: up to -4.00[D]

8.00	8.00	66.25	4.90	9.50	8.9	9.2	76/81	1.00 - 3.00	-4.00 to +2.00

*Do not sag! Use printed sag values for power calculations only. Minimum center thickness for surfacing: 1.2mm

Index Nd	1.586
Abbe Value Nd	30.0
Density gr/cm³	1.20