

TIPS NO 217

Revision A

Date: Aug 2003

Technical Information and Processes

Signet Armorlite, Inc.

KODAK CONCISE[™] Short Corridor Progressive Lens in PolyClear[™] Product Specifications and Fitting Guide.

PURPOSE:

The following is provided for fitting and processing KODAK CONCISE Polycarbonate Progressive Lenses.

Summary of changes:

The back curves and thicknesses were changed on the 1.25 and 3.25 bases.

The new OPCs are:

1 base Concise = 0103819579 - 0103819827

3 base Concise = 0103819843 - 0103820098

replacing the following OPCs:

1 base Concise = 0103729141 - 0103729398

3 base Concise = 0103729414 - 0103729661

CHARACTERISTICS	KODAK Concise in PolyClear
Refractive Index	1.586
Dispersion Value (Abbe)	28.0
Density	1.20
Chemical Resistance	Fair (avoid all solvents except IPA)
Machinability	Good
Rear Surface Coating	Required
UV Transmission cutoff	380 nm

UNIQUE SEMI-VISIBLE MARK: KCP

BLANK SIZE: 78mm diameter blanks decentered 3mm

Effective diameter is 84mm.

BASE CURVES: 1.25, 3.25, 5.50, 7.50

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POWER RANGE: -8.50 TO +4.00

ADD RANGE: 1.00 to 3.00 in .25 Diopter steps.

THICKNESSES: We recommend a minimum center thickness of 1.5mm.

To ensure proper frame retention, low power lenses may require greater

thickness.

KODAK Concise PolyClear Progressive Lens - DIMENSIONS

	Nominal Curve	True Curve	Radius mm	SAG at 50mm	Nominal Concave	Edge Thickness	Center Thickness
I	* 1.25	1.19	445.378	0.70	6.00	14.5	8.0
	* 3.25	3.21	165.109	1.90	6.00	12.2	8.6
	5.50	5.47	96.892	3.28	6.00	7.9	9.2
	7.50	7.51	70.573	4.58	6.00	8.1	13.0

^{*}Affected by changed back curves

GENERAL:

Processing of the KODAK Concise polycarbonate lens is similar to that of standard resin with a few exceptions. Generator and edger wheels designed for polycarbonate material and two-step fining pads designed for polycarbonate <u>must be used</u>.

If you have questions on processing the KODAK Concise polycarbonate lenses, please contact our Technical Services department at 800 759-0075.

COMPUTER CALCULATION OF RX:

The easiest, most efficient method to calculate and process values for an Rx is to use an existing computer software package that contains KODAK Concise Lens design data. If your software company has not included this data in its package, our Technical Services group will be happy to provide the necessary specifications. Please forward us the contact name and phone number of your software vendor. If you need a software program for processing lenses, Signet Armorlite has developed a computer program to calculate surfacing data. This program is available through Signet Armorlite's Technical Services Department.

SEMI-VISIBLE MARKINGS:

KODAK Concise Lens markings have a "+" at the nasal and temporal sides along the 180° axis line as well as the marking KcP. Approximately 3mm below the temporal "+" you will find the add power of the lens. These marks can be located by visually inspecting the lens. Position the lens at arm's length, preferably in front of an overhead fluorescent light. Slowly move the lens away from the edge of the light fixture while looking at the estimated location of the marks along the surface of the lens. The marks will become visible at a given angle of light.

REMOVAL/REMARKING THE TEMPORARY REFERENCE MARKS:

The KODAK Concise Lens markings may be removed by wiping the surface with alcohol. If AR coating the lens, make sure all residue is removed by wiping the area a second time. Never use acetone on polycarbonate lenses.

To re-mark the lens, first locate the semi-visible markings, specifically the "+" symbols engraved along the 180° axis line (see above procedure for locating the semi-visible marks). Once you have located the semi-visible markings, dot them on the lens and use the KODAK Concise verification chart for the final remarking.

FINING AND POLISHING:

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Processing the KODAK Concise Lens is the same as processing other polycarbonate lenses. Safety bevel the lens before fining to allow the slurry smoother access along the lens surface. Large lap tools (at least 3 inch) should be used and allowance made for approximately 0.3mm of stock removal. Perform a stock removal test, using your process to most accurately establish the correct surfacing thickness allowance. We strongly recommend fining pads with eight or more petals be used for curves over 9.00 diopters. This can prevent aberrations and score lines.

EDGING:

Layout for edging should be done in reference to the fitting cross located 2.0mm above the MRP. The fitting cross is placed at the point of the specified segment height and monocular PD.

AR COATING:

Multi-layer AR coatings can be applied to KODAK Concise Lenses. Be sure that your AR coating is compatible with your backside coating. Include impact testing for lenses AR coated and sold by your lab. It may be necessary to increase the minimum center thickness in order to meet impact resistance requirements. Please call Technical Services at 800-759-0075 for additional information about coatings and impact resistance.

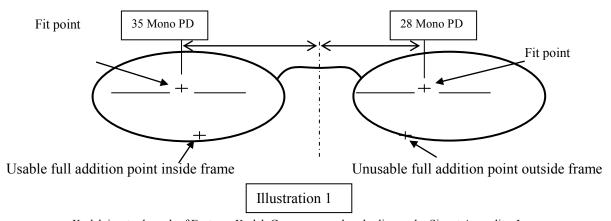
TINTING:

Neither polycarbonate material nor the front surface coating used on this lens will absorb tint. Therefore, in order to tint, a tintable backside coating must be applied. Conventional hard resin tints are acceptable. Neutralize by using only products designed for polycarbonate. Standard neutralizers will damage the lens.

FITTING AND FRAME SELECTION:

Our minimum fitting height (sometimes called the segment height) is 17mm, based on the 12mm corridor length. The measurement includes 2mm above the reference dot where the fitting cross is marked, as well as 3mm of clear area below the full addition location. Minimum fitting height values are completely Rx and frame dependent. The frame shape and patient's monocular PDs will affect this minimum fitting height, which is measured from the lowest point of the frame and not the lowest point of the frame where the reading area falls. Illustration 1.0 shows that the near zone may not fall inside the frame for certain frame and monocular PD requirements.

If a small portion of the critical optical area is outside the frame, discuss with the patient the optical compromise that will occur if this frame is used.



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KODAK Concise in PolyClear Base Curve Selection Chart

