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When fitting the lens of this invention, a trial lens method including a fluorescein assessment should be employed. With such a fitting method, the base curve radius of the first trial lens is chosen by measuring the corneal curvature and identifying the Flat K and the amount of corneal astigmatism. Preferably, the lenses of this invention may be provided with a base curve radius (Ro) from about 6.30 mm to 8.30 mm, generally in incremental steps of 0.05 mm or 0.10 mm. Outside diameters preferably range from about 8.2 mm to 10.5 mm, with the central zone (A) having a diameter preferably greater than the pupil diameter and less than 8.0.

By way of example, a representative lens of the subject invention may include a base curve radius of 7.3 mm and an outer diameter of 9.6 mm; and may be provided with the following back side dimensions: central zone (A) having a diameter of 7.0 mm, the base curve radius of 7.3 mm and constituted by a segment of an ellipsoid having an eccentricity of 0.75; marginal zone (B) having a diameter of 9.0 mm, a peripheral radius of 5.7 mm and constituted by a segment of a hyperboloid having an eccentricity of 1.5 and an offset of -0.11; a peripheral zone having a peripheral radius of 6.6 mm and constituted by a segment of a hyperboloid having an eccentricity of 0.083 and an offset of -0.34; with a front side having a central zone consisting of a single spherical curve having a diameter of about 4.0 mm and a marginal zone for providing plus power (up to about 1 diopter) and having a diameter of about 4 to 5 mm.

Lenses with other curves can be provided by one skilled in the art.

The present invention is not limited to the details of the illustrative embodiments provided herein. This invention

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may be embodied in other specific forms without departing from its essential attributes. The present embodiments are therefore to be considered as illustrative and not restrictive.

What is claimed is:

1. A multifocal contact lens having an edge, a front and back side and a plurality of concentrically arranged zones comprising a central zone, a peripheral zone and a marginal zone between said central zone and said peripheral zone, wherein each of the zones on the back side of the lens is defined by a second-order surface of revolution other than spherical, and wherein the marginal zone of the front side comprises at least two different spherical surfaces for providing multiple focal points and provide increasing plus power correction from the central zone toward the peripheral zone.

2. The lens of claim 1 wherein the central and marginal zones of the front side of the lens consist of only spherical surfaces.

3. The lens of claim 1 wherein the central and marginal zones of the back side of the lens have an axial edge lift which increases toward the edge of the lens.

4. The lens of claim 1 wherein the peripheral zone on the back side of the lens has an axial edge lift which decreases toward the edge of lens.

5. The lens of claim 1 wherein the transition between the central zone and marginal zone on the back side of the lens is tangential.

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