

$$= \frac{1}{r_F} + \frac{A(1 + e^{c(y-d)}) - m}{300(n' - n)} \text{ [cm}^{-1}\text{]}$$

wherein the values of A, c, d, m are taken from the following table:

A	c [cm ⁻¹]	d [cm]	m
1,0	2,29	2,19	30
1,5	2,59	2,02	30
2,0	2,80	1,93	30
2,5	2,96	1,87	30
3,0	3,09	1,82	30

and the numerical values of c, d, m for intermediate values of A.

13. A lens for eyeglasses, comprising a surface having an upper distance vision portion FT containing a far reference point B_F and given average distance-vision portion surface refractive powers \bar{D}_F , said surface having a lower near-vision portion NT containing a near reference point B_N given average near-vision surface refractive powers \bar{D}_N , said surface having a progression region PB located between said distance portion FT and said near portion NT with average surface refractive powers \bar{D}_P which effect a smooth transition from said distance portion FT to said near portion NT, said surface being divided into a temporal portion and a nasal portion by a principal meridian M which forms an umbilical point line, characterized in that said surface fits the following equation in a cylindrical system of coordinates (y, ρ, φ):

$$\rho(\phi, y) = \sum_{n=0}^{\infty} a_n(y) \cos [n \cdot k(y) \phi]$$

wherein a_n(y) for n >> 2 equals zero and ρ(φ, y) is an umbilical point line and the curve f(y) of the principal meridian (M) describes,

$$a_0(y) = f(y) + g(y)/k^2(y)$$

$$a_1(y) = -g(y)/k^2(y)$$

$$g(y) = f(y) + \frac{f^2(y) \cdot f'(y)}{1 + f^2(y)}$$

and k(y) is a monotonously ascending function from the near portion (NT) to the distance portion (FT) or a number constant over the entire surface.

14. A lens for eyeglasses as in claim 13, characterized in that the progress of curvature

$$F(y) = \frac{f'(y)}{(1 + f^2(y))^{3/2}}$$

of the principal meridian (M) of the equation

$$F(y) = A[1 - (1 + e^{-c(y+d)})^{-m}]$$

is sufficient, in which

$$A = \bar{D}_N - \bar{D}_F$$

and the values c, d, m are selected such that the far reference point B_F lies 6 mm above the center point 0 of the surface, is constant above the far reference point B_F of the average surface refraction power \bar{D}_F along the principal meridian M up to ±0.05 [dpt], the near reference point (B_N) lies 12 mm below the center point 0 of the surface, and below the near reference point (B_N) the average surface refraction power \bar{D}_N along the principal meridian (M) is constant up to ±0.05 [dpt].

15. A lens for eyeglasses according to claim 13, characterized in that k(y) lies in the range of 3 to 10.

16. A lens for eyeglasses as in claim 14, characterized in that k(y) lies in the range of 3 to 10.

17. A lens for eyeglasses according to claims 13, 14, 15, or 16, characterized in that

$$K(y) \pm 5\% = 3 + \frac{7}{1 + e^{-3(y+1,8)}}, y \text{ in [cm].}$$

18. A lens for eyeglasses according to claims 13, 14, 15 or 16, characterized in that

$$k(y) \pm 2\% = 3 + \frac{7}{1 + e^{-3(y+1,8)}}, y \text{ in [cm],}$$

19. A lens for eyeglasses according to claim 14, characterized in that for a tolerance range of ±5% for F(y) the parameter values of F(y) can be taken from the following table:

A	c [cm ⁻¹]	d [cm]	m
1,0	2,29	2,19	30
1,5	2,59	2,02	30
2,0	2,80	1,93	30
2,5	2,96	1,87	30
3,0	3,09	1,82	30,

wherein for intermediate values of A the numerical values of c, d, m are to be interpolated.

20. A lens for eyeglasses according to claim 14, characterized in that for a tolerance range of ±2% for F(y) can be taken from the following table:

A	c [cm ⁻¹]	d [cm]	m
1,0	2,29	2,19	30
1,5	2,59	2,02	30
2,0	2,80	1,93	30
2,5	2,96	1,87	30
3,0	3,09	1,82	30,

wherein for intermediate values of A the numerical values of c, d, m are to be interpolated.

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