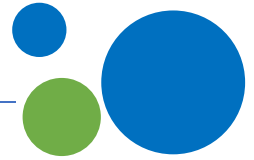


Corneal Gas Permeable Lens Design



Gas Permeable Base Curve Selection (Minus Lenses)

Bennett Method

Corneal Cylinder	Base Curve	Tetracurve Design	Tricurve Design
Plano-0.50D	0.50-0.75D flat	>8.8mm OAD	>8.8mm OAD
0.75-1.00D	0.25-0.50D Flat	<u>SCR</u> =	<u>SCR</u> =
1.25-1.50D	On K-0.25D Flat	BCR +	BCR +
1.75-2.00D	0.25D Steep	0.8mm/0.3mm	1.0mm/0.3mm
2.25-2.50D	0.50D Steep	<u>ICR</u> =	<u>PCR</u> =
2.75-3.00D	0.50-0.75D Steep	SCR+1.0mm/0.2mm	SCR+2.0mm/0.3mm
		<u>PCR</u> =	
		ICR+1.4mm/0.2mm	
<i>Both should be blended medium ideally</i>			

Important Notes:

Adjustment of Overall Diameter (OAD)

OAD of 8.4-8.8 for >45.50D K reading and decrease OZD

OAD of 9.4-9.6 for <41.50D K reading and increase OZD

Adjustments of Base Curve and Power

0.25 D change in Power for each BC change of 0.05mm

SAM (Steeper Add Minus) or FAP (Flatter Add Plus)

Flatten BC 0.25D (0.05mm) for each increase in OAD & OZ of 0.5mm

Steepen BC 0.25D (0.05mm) for each decrease in OAD & OZ of 0.5mm



Gas Permeable Lens Design

Mid K Method

OAD	8.5 mm	9.0 mm	9.5 mm
BC	avg K	avg K-0.50D	Avg K-1.00D
OZ	7.3mm	7.8mm	8.3mm
ICR/W	BC+1.0mm/0.2	BC+1.0mm/0.2	BC + 1.0mm/0.2
PCR/W	BC+3.0-5.0mm/0.4	BC+3.0-5.0mm/0.4	BC+3.0-5.0mm/0.4

K > 45.50 use smaller OAD

K < 41.50 use larger OAD

GP Center Thickness Estimation (non-ultrathin designs)

Power	20 to 49 Dk	50+ Dk
-1.00	0.18	0.19
-2.00	0.16	0.18
-3.00	0.14	0.16
-4.00	0.14	0.15
-5.00	0.13	0.14
>-6.00D	0.13	0.14

Rules of Thumb

Increase center thickness 0.02mm for high Dk materials

Increase center thickness 0.02mm for each diopter of corneal astigmatism

Plus lenticular for >-5.00 and minus lenticular for -1.50 into plus powers, CN bevel for -4.00 to -6.00