

The logo features the text 'RGP Toric Fitting Guide' in a bold, blue, sans-serif font. The text is centered within a graphic of several overlapping, light blue circles that resemble the profile of contact lenses.

## Toric Periphery

Manufactured with a spherical optic and a toroidal periphery and used as a method of improving the fit of a lens on an astigmatic cornea without introducing the problem of induced astigmatism. Specify the lens material and specification required and request a toric periphery.

*Available in the following RGP designs; 4F, Oxyflex Percon, Aqualine MF*

## Front Surface Toric

Used when the cornea is spherical, but there is refractive astigmatism.

The lens needs to be stabilised with a prism ballast. The standard amount of prism ballast supplied is 1.5 Δ.

Use a spherical trial lens to assess the fit and then carry out an over refraction noting the sphere, cyl and axis. Alternatively supply us with the following information.

**K readings or Base Curve of current lens**

**Spec Rx & BVD (if over 4.00D)**

**HVID or Total diameter required**

**Lens design & material required**

**Handling Tint**

**Engravings**

*Available in the following RGP designs; 4F, Oxyflex Percon*

## Bi-Toric

Used when the Back Surface Toric lens has created sufficient induced astigmatism. Normally over 1.00DC to necessitate correction with a front surface cyl.

If already happy with the fit of a back surface toric, carry out an over refraction and advise us of the lens specification and the over-refraction. Alternatively, contact us with the following information.

**K readings or Base Curve of the current lens**

**Spec Rx & BVD (if over 4.00D)**

**HVID or Total diameter required**

**Lens design & material required**

**Handling tint**

**Engravings**

These lenses do not need to be stabilised.

*Available in the following RGP designs; 4F, Oxyflex Percon*

## Back Surface Toric

Used when the corneal astigmatism is greater than 2.50DC / difference in K readings is greater than 0.50mm.

*Available in the following RGP designs; 4F, Oxyflex, Aqualine MF*

The required base curves can be calculated by making the radius 0.05mm flatter than flattest K and 0.10mm flatter than steepest K, the powers on each meridian need to be adjusted according to the deviation from the K's.

### An example of this would be:

K readings 8.00mm @ 180 / 7.40mm @ 90

Spec Rx -0.50/-3.00 x 180

Flat BOZR Flat K + 0.05mm 8.00mm + 0.05mm = 8.05mm

Because we are adjusting the radius of the contact lens in relation to the K reading, we need to take into consideration the tear lens that will be produced and adjust the power accordingly. For every 0.05mm change in Base curve: K reading we need to adjust the power by 0.25D. As we are flattening the base curve in relation to the K reading this will produce a negative tear lens, so the power needs to be adjusted by a positive amount to compensate. Therefore, when we change the base curve by 0.05mm we will need to change the power by +0.25D

Power on Flat BOZR = Power on Flat Meridian + 0.25D

= -0.50D + 0.25D

= -0.25D

Steep BOZR Steep K + 0.10mm 7.40mm + 0.10mm = 7.50mm

The same applies to the power adjustment needed, for every 0.05mm change in curvature the power needs to be adjusted by 0.25D, however as the difference in K reading and BOZR for the steep meridian is 0.10mm, the power will need to be adjusted by 0.50D, and once again as we are making the lens flatter than the steeper K, we need to change the power by +0.50D

Power on Steep BOZR = Power on Steep Meridian +0.50D

= -3.50D + 0.50D

= -3.00D

Therefore, base curves and powers to be ordered.

8.05 x 7.50 -0.25D on the FLAT/-3.00D on the STEEP

Alternatively, supply us with the following information:

**K readings**

**Spec Rx & BVD (if over 4.00D)**

**HVID**

**Material required**

**Handling Tint**

**Engravings**

These lenses do not need to be stabilised.