PRODUCT INFORMATION
Alcon Laboratories, Inc.

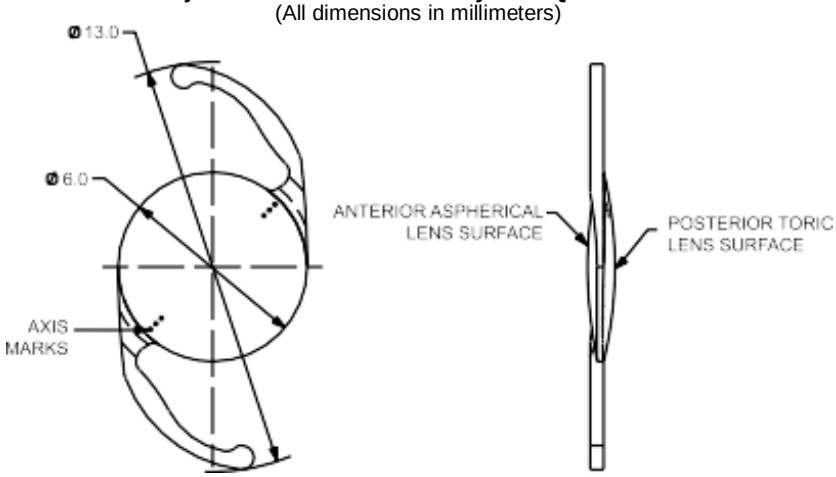
ENGLISH

STERILE UV and Blue Light Filtering Acrylic Foldable
Toric Aspheric Optic Single-Piece Posterior Chamber Lenses

CAUTION: Federal (USA) law restricts this device to the sale by or on the order of a physician.

DESCRIPTION
The AcrySof® IQ Toric Posterior Chamber Intraocular Lens (IOL) is a UV-absorbing foldable intraocular lens (IOL). These IOLs have a biconvex toric aspheric optic with cylinder axis marks to denote the flat meridian (plus cylinder axis). The single-piece design (see Figure 1 and Table 1) consists of a high refractive index material with proprietary blue light filtering chromophore which filters light in a manner that approximates the human crystalline lens in the 400-475 nm blue light wavelength range (Boettner and Wolter, 1962). In addition to standard UV-light filtering, the blue-light filtering chromophore reduces transmittance of blue light (see Table 2). The biconvex toric aspheric optic consists of a high refractive index soft acrylic material capable of being folded prior to insertion, allowing placement through an incision smaller than the optic diameter of the lens. After surgical insertion into the eye, the lens gently unfolds to restore the optical performance. The supporting haptics provide for proper positioning and fixation of the IOL optic within the eye. The anterior surface of the AcrySof® IQ Toric IOL Model SN6ATT is designed with negative spherical aberration identical to the aspheric AcrySof® IQ IOL Model SN60WF to compensate for the positive spherical aberration of the cornea.*

Figure 1:
Physical Characteristics of AcrySof® IQ Toric IOLs
(All dimensions in millimeters)

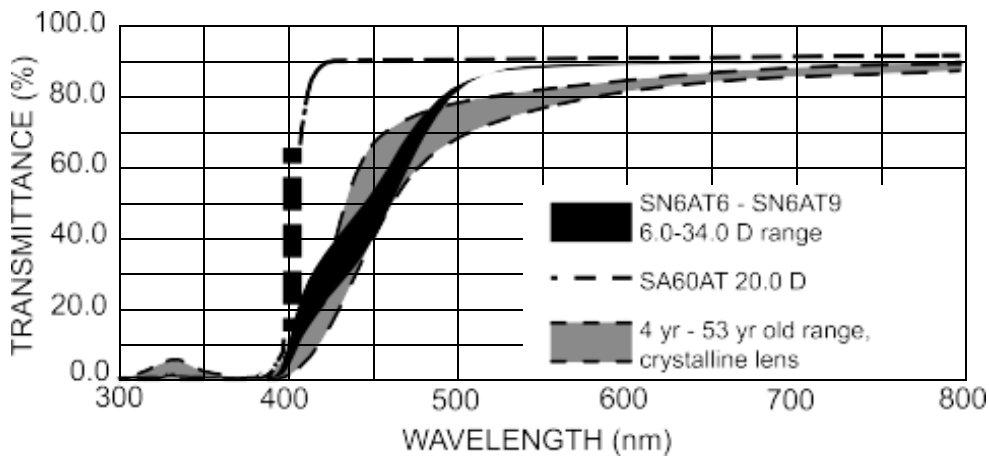


* The effects of this aspheric design feature have been clinically assessed on AcrySof® IQ IOL Model SN60WF.

Table 1:
Physical Characteristics of AcrySof® IQ Toric IOLs

Characteristics	Model			
	SN6AT6	SN6AT7	SN6AT8	SN6AT9
	Collectively referred to as Model SN6ATT			
Optic Type	Biconvex Toric Aspheric Optic			
Optic / Haptic Material	Ultraviolet and blue light filtering Acrylate/Methacrylate Copolymer UV cutoff at 10% T: 399 nm (+6.0 diopter lens) 407 nm (+34.0 diopter lens)			
IOL Powers (spherical equivalent diopters)	For available power range see Alcon Product Guide			
IOL Cylinder Power (Diopters)	3.75 D	4.50 D	5.25 D	6.00 D
Index Of Refraction	1.55			
Haptic Configuration	STABLEFORCE® Haptic			
Optic Diameter (mm)	6.0			
Overall Length (mm)	13.0			
Haptic Angle	0º			

Figure 2:
Spectral Transmittance Curves
(Percentage of Ultraviolet Transmittance)



NOTE:

- Human lens data from Boettner and Wolter (1962).

Table 2:
Average % Transmittance Comparison

Model	400 nm	425 nm	450 nm	475 nm
SA60AT (20.0D)	21	86	88	88
SN6ATT (20.0D)	8	33	49	68
Transmittance Difference (SA60AT – SN6ATT)	13	53	39	20
Transmittance Reduction with SN6ATT (% of SA60AT)	62	62	44	23

MODE OF ACTION

AcrySof® IQ Toric IOLs are intended to be positioned in the posterior chamber of the eye, replacing the natural crystalline lens. This position allows the lens to function as a refractive medium in the correction of aphakia. These IOLs have a biconvex toric aspheric optic with cylinder axis marks to denote the flat meridian (plus cylinder axis). Alignment of the toric IOL cylinder axis marks with the post-operative steep corneal meridian allows the lens to correct astigmatism. The biconvex toric aspheric optic reduces spherical aberration as compared to a standard spherical toric optic in an average eye. The astigmatic correction at the corneal plane for AcrySof® IQ Toric intraocular lenses is shown in Table