

SH SOFT K SEMI SCLERAL CONTACT LENSES

Silicone Hydrogel lens for Keratoconus and irregular corneal cases

Lens Design

The **SH Soft K Semi Scleral** lens has evolved by increasing the diameter of our **SH Soft-K** contact lens, for patients with keratoconus and corneal ectasia. The advantages of **silicone hydrogel** materials are well known. High oxygen transmissibility and lower dehydration rate when compared to conventional hydrogels provide better support for normal corneal physiology. This is especially important when increased lens thickness is required. The greater stiffness of these materials provide added value to lens surface regularization properties. Due to the large lens diameter these lenses actually rest on the sclera and para-limbal cornea, which usually remains unchanged in keratoconus, with just a "feather" touch on the central protrusive area. Therefore, a fitting pattern that resembles a "minimal apical touch" of RGP contact lenses is achieved.

The ultra-thick optical zone is responsible for corneal surface regularization and consequent acuity improvement. The front optical surface is aspheric to reduce possible spherical and vertical coma high order aberrations (HOAs), which are quite frequent in keratoconus. When residual astigmatism exists, a front cylinder may be incorporated into the lens design. These lenses are manufactured in Definitive (filcon V3) High DK **silicone hydrogel** materials.

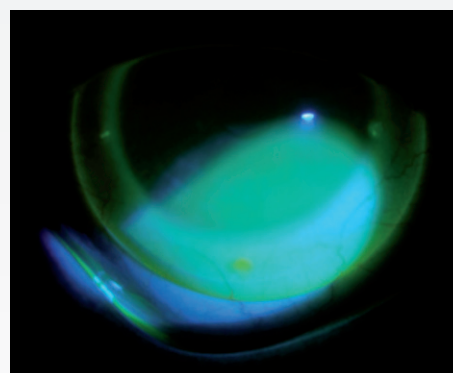
Fenestration holes located at the lens' limbal area provide front and back surface pressure stabilization and prevent lens adhesion. These fenestrations improve the flow of tears over the cornea thus helping to improve the fluid oxygen available under the lens. The large diameter of the lens, 17.00 mm in size, provides excellent centration over the cornea and makes limbal vaulting possible.

The limbal vaulting zone and scleral landing zone is achieved with the basic 9 lens trial set (see trial lens set table) , that includes lenses with Steep and flat periphery in order to maintain adequate limbal clearance and to allow tears to penetrate under the lens edge (see picture). High molecular weight flourcien is required for peripheral curve fitting, to rule out scleral blanching and excessive edge lift.

Fitting this lens is also recommended for post Cross Link procedures.

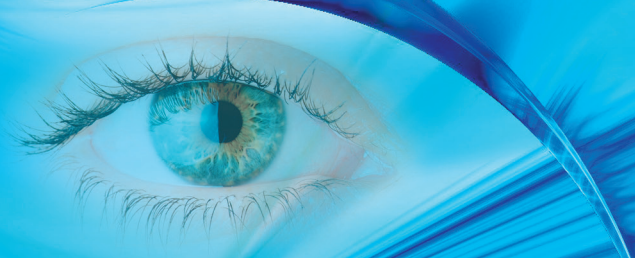
The final product is a lens which provides your customer with:

- Good visual acuity
- High level of comfort
- Increased ocular health



		PWR	BC	DIA	Mark
Trial Lens	Regular	-1.00	7.60	17.00	R-76
	Regular	-2.00	7.30	17.00	R-73
	Regular	-3.00	7.00	17.00	R-70
	Regular	-4.00	6.70	17.00	R-67
	Regular	-5.00	6.40	17.00	R-64
Trial Lens	Steep	-1.50	7.60	17.00	S-76
	Steep	-2.50	7.30	17.00	S-73
	Steep	-3.50	7.00	17.00	S-70
	Steep	-4.50	6.70	17.00	S-67

Trial Lens Set Table



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Lens Specifications	
Material	Filcon V 3
Water Content	74%
Handling Tint	Clear
Visible Light Transmission	99.3%
Wetting Angle	85.0° Advanced
Modulus (MPa)	0.35
Base Curve Range	
Steep Periphery	6.70, 7.00, 7.30, 7.60
Regular Periphery	6.40, 6.70, 7.00, 7.30, 7.60
Diameter	17.0mm
Center Thickness	0.60mm @ -3.00DS
Oxygen Permeability (DK)	60.0 x 10 ⁻¹¹ @ 35°
Oxygen Permeability (DK/L)	10.0 x 10 ⁻⁹ @ -3.00DS
Sphere Power	-20.00 to +20.00 in 0.25 DS steps
Cylinder *	-0.75 to -4.50DC (front toric)
Axis	1° to 180° in 1° steps
Lens Design - Front For Sphere Power For Toric *	Aspheric Toric with prism ballast
Back	Lenticular
Packaging	Vial

* optional

Fitting instruction

- Choose the first Trial Lens BC by evaluating the corneal topography elevation map and / or 0.3 to 0.4 flatter than avg. K. readings
- Scleral zone fitting with high molecular weight flourcien
- Change lens accordingly
- Calculate BVC from the over refracted spectacle prescription

Lens Care

For ease and comfort, it is highly recommended to wet the lens for about 60 seconds before removing from the eye – "Eye lid removal system" is essential

- Daily cleaning with all types of cold systems.
- Hydrogen peroxide systems are recommended.