Benz IOL 25 UVX Hydrophillic Material

Specifications

Characteristics	Value			
Residual HEMA	0.8% Maximum			
Water Content	25.5%			
Radial/Linear Expansion	1.125			
UV Cutoff	≥ 95% @ 600nm	≥ 80% @ 400nm	< 10% @ 370nm	
Refractive Index	@589nm	@546nm		
20°C Wet	1.460	1.462		
35°C Wet	1.460	1.462		
20°C Dry	1.507	1.509		
35°C Dry	1.507	1.509		

Options

Standard size	Diameter – 12.7 mm / 14.5 mm / 16.0 mm	Thickness – 2.5 mm

Machining

Environment Control

We recommend maintaining a maximum Relative Humidity of 45% at 21 ±2°C

Diamond Tooling

TOOLING	RADIUS (MM)	TOOLING	RADIUS (MM)
Rough	0.400	Fine	0.300

Machining Recommendations

1st & 2nd Optics	Speed (RPM)	Feed (mm/min)	Depth (mm)
Rough	10,000	90	0.20
Fine	9,500	15	0.120

Polishing

Benz IOL25UV material can be polished using normal aqueous media tumble polishing methods. Benz R&D has developed a non-aqueous polishing method. This dry polishing technology offers the benefits of fast polishing times, excellent surface quality and very high yields. Benz Dry Polishing Technology is available to our customers as a licensed technology product. Please contact us.

Hydration

Hydrate the lens in Borate Buffer pH 7.2 isotonic saline or similar buffered saline solution as per table below.

Isotonic Saline:

Borate Buffer pH 7.2; 295 mOs

NaCl 8.01 grams • H_3BO_3 2.47 grams • $Na_2B_4O_7 \cdot 10H_2O$ 0.14 grams

The procedure recommended for hydration is as follows:

a. Place the dry, polished IOLs in perforated vials immersed in saline solution (a minimum of 10 ml volume per IOL is recommended) at room temperature for 24 hours with stirring.

b. Replace the saline solution with fresh saline solution (a minimum of 10-ml volume per IOL is recommended) and continue to hydrate for an additional 24 hour with stirring.

c. After the 48-hour hydration period, the lenses should be removed from the saline and cleaned with a lens cleaning solution (such as Bausch and Lomb lens cleaner) or a basic lab detergent (such as a solution of Tergazyme and water) use sterile technique. Once hydration and cleaning is complete, the lens power is determined by confirming Diopter and MTF using an IOLA system from Rotlex or similar measuring instrument. After measurement of each lens it is recleaned with lens cleaning solution and rinsed thoroughly to remove residual lens cleaner.

d. Lenses are now ready for packaging and sterilization.