COLLAMER® CHARACTERISTICS & MATERIAL PROPERTIES

Evolution in Visual Freedom™
PRODUCT INFORMATION

ATTENTION: Reference Product Information for a complete listing of indications, warnings and precautions.
Collamer Composition

• Collamer is derived from two words that describe the composition of the material which are called “Collagen” and “Co-polymer.”

• The Collamer material is bonded with UV absorbing chromophore into a poly-HEMA based copolymer that offers UV protection.

• Collamer is exclusive to STAAR Surgical. It has a proven history for over 20 years with more than 1 million lens implants worldwide.
COLLAMER CHARACTERISTICS: REFRACTIVE INDEX

- The risk of dysphotopsia due to internal reflections increases as light passes through materials with more greatly differing refractive indexes (RI). ¹, ²

- The hydrophilic nature of Collamer promotes a high water content (40%) in the lens minimizing the difference in refractive index between the lens and aqueous of the eye.

Collamer Characteristics: Internal Reflectance

- Intraocular lenses (IOLs) have been plagued with patient complaints of glare, halos, and reflections.\textsuperscript{1,2}
- The RI of Collamer minimizes reflections and may contribute to a lower potential for dysphotopsia.

Collamer Characteristics: Lower HOAs

• Study conducted by Robert G. Martin, MD and Donald R. Sanders, MD, PhD.³

• The objective of the study was to determine if implantation of 4 different foldable lens designs resulted in different amounts of higher order aberrations.

• Results:
  
  ▪ All lenses tested induced more higher order aberrations than the Collamer lens.
  
  ▪ Significantly less third and fourth order aberrations: coma, trefoil, spherical aberration, and tetrafoil were observed postoperatively in the Collamer lens.

**COLLAMER CHARACTERISTICS: PHYSIOLOGICAL RESPONSE**

- Post operative “Quiet Eye”. 4,5

- The unique properties of Collamer minimize inflammation, flare and cellular reaction. 4,5


**Collamer Characteristics: Summary**

- **Collamer Attributes**
  - Collamer is a collagen containing lens material that provides **biocompatibility**.
  - Collamer is a copolymer biocompatible material that promotes Post-operative “Quiet Eye.”  
  - Collamer has anti-reflectance properties.


