Optimized Constants for AF-1 / Nanex™ Preloaded IOLs

(based on clinical results published on IOLCon and optical biometry mostly from the Zeiss IOLMaster)

Model name	Specifications	Nominal A	Barrett LF	Haigis a_0	Haigis a_1	Haigis a_2	Hoffer Q pACD	Holladay-1 sf	SRK/T A	Castrop C	Castrop H	Castrop R	
AF-1													
PY-60AD	3-Piece, asph.	118.4	1.67	-0.093	-0.023	0.208	5.30	1.54	118.6	-	-	-	*
PC-60AD	3-Piece, asph.	118.4	1.67	-0.093	-0.023	0.208	5.30	1.54	118.6	-	-	-	
PY-60R	3-Piece, spherical	118.4	1.62	1.060	0.400	0.100	5.24	1.48	118.5	-	-	-	*
PC-60R	3-Piece, spherical	118.4	1.62	1.060	0.400	0.100	5.24	1.48	118.5	-	-	-	
251	1-Piece, asph.	118.4	1.62	-0.542	0.161	0.204	5.30	1.52	118.5	-	-	-	*
250	1-Piece, asph.	118.4	1.62	-0.542	0.161	0.204	5.30	1.52	118.5	-	-	-	*
255	1-Piece, asph.	118.4	1.62	-0.542	0.161	0.204	5.30	1.52	118.5	-	-	-	
254	1-Piece, asph.	118.4	1.62	-0.542	0.161	0.204	5.30	1.52	118.5	-	-	-	
151	1-Piece, spherical	118.4	1.62	-0.542	0.161	0.204	5.30	1.52	118.5	-	-	-	
150	1-Piece, spherical	118.4	1.62	-0.542	0.161	0.204	5.30	1.52	118.5	-	-	-	

As the data set for model 250/251 is larger on Ocusoft/ULIB than that submitted to IOLCon, the recommendation is to use the Manufacturer/ULIB constants rather than the optimized IOLCon values.

Nanex™

Model name	Specifications	Nominal A	Barrett LF	Haigis a_0	Haigis a_1	Haigis a_2	Hoffer Q pACD	Holladay-1 sf	SRK/T A	Castrop C	Castrop H	Castrop R	
NY1-SP	1-Piece, asph.	119.2	1.94	-0.2676	0.2382	0.1993	5.715	1.904	119.112	-	-	-	**
NC1-SP	1-Piece, asph.	119.2	1.94	-0.2676	0.2382	0.1993	5.715	1.904	119.112	-	-	-	**

* http://ocusoft.de/ulib/c1.htm (as of Oct 31, 2016)
** https://iolcon.org (as of May 4, 2023)

███████ UV-filter   ███████ UV- and blue light filter

Constants for Holladay-2, Hill-RBF or KANE formulas are not published on Ocusoft or IOLCon. Optimized constants for these formulas can be calculated in some biometer devices based on the above-mentioned SRK/T values. The Olsen formula can be used for IOL power calculation in the Oculus Pentacam AXL and Haag-Streit Lenstar / Eyestar devices, as all required IOL parameters are included in the corresponding software.

These optimized constants for the calculation of intraocular lens power are based on actual surgical data and are provided by Ocusoft or IOLCon as a starting point for individual constant optimizations. The information available on these websites are based on data originating from other users and not by HOYA Surgical Optics ("HSO"). HSO therefore does not warrant the correctness, completeness and correctness of the contents on the said websites.

HOYA
SURGICAL OPTICS

Optimized Constants for Vivinex™ Preloaded IOLs

(based on clinical results published on IOLCon and optical biometry mostly from the Zeiss IOLMaster)

Model name	Specifications	Nominal A	Barrett LF	Haigis a_0	Haigis a_1	Haigis a_2	Hoffer Q pACD	Holladay-1 sf	SRK/T A	Castrop C	Castrop H	Castrop R	
Vivinex™													
XY1 **XY1-SP**	1-Piece, asph.	118.9	2.0	-1.0453	0.2582	0.2292	5.716	1.944	119.226	0.3249	0.1267	0.1548	NEW **
XC1 **XC1-SP**	1-Piece, asph.	118.9	2.0	-1.0453	0.2582	0.2292	5.716	1.944	119.226	0.3249	0.1267	0.1548	NEW **
Vivinex Impress™													
XY1-EM	1-Piece, asph.	118.8	2.0	-1.0453	0.2582	0.2292	5.716	1.944	119.226	0.3249	0.1267	0.1548	NEW

As there is currently no data set available for Vivinex Impress™ on IOLCon, the recommendation is to use the optimized constants for the Vivinex™ monofocal IOL also for Vivinex Impress™.

Model name	Specifications	Nominal A	Barrett LF	Haigis a_0	Haigis a_1	Haigis a_2	Hoffer Q pACD	Holladay-1 sf	SRK/T A	Castrop C	Castrop H	Castrop R	
Vivinex™ Toric													
XY1A **XY1A-SP**	1-Piece, toric, asph.	118.9	2.0	-1.0453	0.2582	0.2292	5.716	1.944	119.226	0.3249	0.1267	0.1548	NEW

As IOLCon data set is less than 100 cases for Vivinex™ Toric, the recommendation is to use the optimized constants for the Vivinex™ monofocal IOL also for Vivinex™ Toric.

Model name	Specifications	Nominal A	Barrett LF	Haigis a_0	Haigis a_1	Haigis a_2	Hoffer Q pACD	Holladay-1 sf	SRK/T A	Castrop C	Castrop H	Castrop R	
Vivinex™ Gemetric™ (Toric) / Vivinex™ Gemetric™ Plus (Toric)													
XY1-G(T) **XY1-GP(T)**	1-Piece, trifocal, asph., non-toric and toric	119.0	1.88	-0.0199	0.3437	0.1620	5.548	1.789	118.998	-	-	-	NEW **

** https://iolcon.org (as of May 4, 2023)

UV-filter   UV- and blue light filter

Constants for Holladay-2, Hill-RBF or KANE formulas are not published on Ocusoft or IOLCon. Optimized constants for these formulas can be calculated in some biometer devices based on the above-mentioned SRK/T values. The Olsen formula can be used for IOL power calculation in the Oculus Pentacam AXL and Haag-Streit Lenstar / Eyestar devices, as all required IOL parameters are included in the corresponding software.

These optimized constants for the calculation of intraocular lens power are based on actual surgical data and are provided by Ocusoft or IOLCon as a starting point for individual constant optimizations. The information available on these websites are based on data originating from other users and not by HOYA Surgical Optics ("HSO"). HSO therefore does not warrant the correctness, completeness and correctness of the contents on the said websites.

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