

Material Evidence:

In recent years, more attention has been focused on the material attributes of foldable IOL's. As our knowledge evolves, we are finding that the characteristics of lens materials make a considerable difference in resulting long-term clinical outcomes. With this in mind, this primer is intended to outline the differences in foldable IOL materials, and to demonstrate the uniqueness of the **Alcon® AcrySof®** lens.



Aside from optic and haptic design, foldable IOL's can be classified based on their material makeup, refractive index, and water content:

Material Makeup

PMMA Based Hydrophobic Acrylic	Silicone Based 1 st /2 nd Generation	HEMA (Hydrogel) Based Hydrophilic Acrylic
Alcon® AcrySof®	Allergan SI-30/40/55	B & L HydroView
Allergan Sensor	Pharmacia CeeOn	CIBA MemoryLens
	B & L Soflex LI-41/61	Staar Collamer
	Staar Plate haptic	Corneal ACR6D, etc. IOL Technology, etc. Alcon® HydroSof

Refractive Index



1.41-1.42	1.46-1.47	1.49	1.55
• 1 st Generation Silicone	• 2 nd Generation Silicone	• PMMA	• Alcon® AcrySof®
	• Hydrophilic acrylic		
	• Allergan Sensor		

Water Content

Lens	Water Content	Classification
∨ AcrySof®	<1 %	Hydrophobic
PMMA	<1 %	Hydrophobic
Silicone	<1 %	Hydrophobic
Sensor	1.6 %*	Hydrophobic
HydroView	18 %	Hydrophilic
Memory Lens	20 %	Hydrophilic
Corneal/IOL Tech.	26-28 %	Hydrophilic
Collamer	36 %	Hydrophilic
HydroSof	38 %	Hydrophilic