

## Smarter composition, superior outcomes

Not all hydrophobic acrylic lenses perform the same. While many IOLs are technically made of hydrophobic acrylic material, their overall chemical compositions may differ considerably. These differences can impact many aspects of IOL performance, such as capsular adhesion and stability, which can significantly affect patient outcomes.<sup>1,2</sup>

Hydrophobic Acrylic IOL Characteristics Comparison <sup>2-5</sup>		
Manufacturer	Material Composition	Refractive Index
AcrySof <sup>®</sup> IOL (Alcon)	Copolymer of phenylethyl acrylate and phenylethyl methacrylate, cross linked with butanediol diacrylate <sup>2</sup>	1.55 <sup>2,3</sup>
Tecnis <sup>®</sup> (AMO)	Copolymer of ethyl acrylate, ethyl methacrylate, 2,2,2-trifluorethyl methacrylate, cross linked with ethylene glycol dimethacrylate <sup>2</sup>	1.47 <sup>2,4</sup>
AF-1 <sup>®</sup> (HOYA)	Cross linked copolymer of phenylethyl methacrylate and n-butyl acrylate, fluoroalkyl methacrylate <sup>2</sup>	1.52 <sup>2,5</sup>

## Water content: A critical factor

Clinical evidence shows a correlation between higher IOL water content and increased incidence of adverse effects, such as posterior capsule opacification and material calcification.<sup>6,7</sup>

Water Content Comparison <sup>8</sup>			
IOL Brand <sup>*</sup>	Model Number	Polymer	Water Content (%)
AcrySof <sup>®</sup>	SN60WF	Hydrophobic	0.20% <sup>†</sup>
Tecnis <sup>®</sup>	ZA9003	Hydrophobic	0.69% <sup>†</sup>
HOYA <sup>®</sup>	AF-1	Hydrophobic	0.77% <sup>†</sup>
EnVista <sup>®</sup>	MX60	Hydrophobic/ Hydrophilic Hybrid	4.60%
Akreos <sup>™</sup>	MI-60	Hydrophilic	26.00%

<sup>\*</sup>All trademarks are the property of their respective owners.

<sup>†</sup>There has not been a study to show that the differences between these water content values are clinically significant.