ALSAVISC

Sodium Hyaluronate Viscoelastics

ALSANZA
Medizintechnik und Pharma GmbH

Visco-Elasticity

Molecular Weight

GREAT HARMONY

Surface Tension

DISPERSIVE
SODIUM HYALURONATE[1]

Diffuse
3.0%

COHESIVE
SODIUM HYALURONATE[1]

Cool
1.4%
1.6%

Deep
1.8%

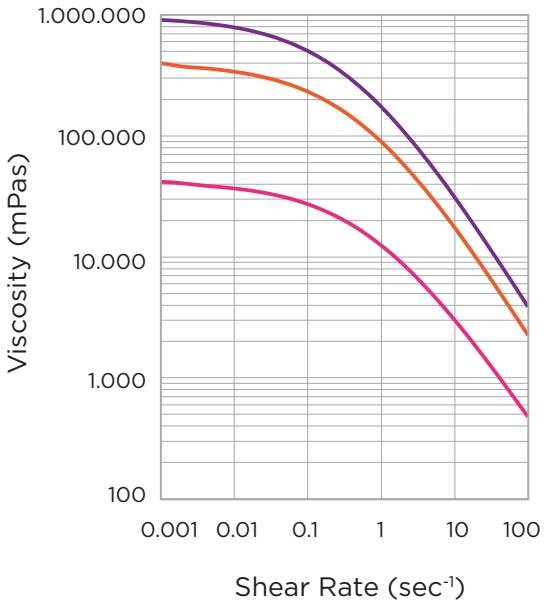
- **Molecular Weight: 750.000 Daltons**
- Low surface tension provides surface affinity for endothelium protection
- Higher coating ability for safe procedures

- **Molecular Weight: 3.000.000 Daltons**
- Higher molecular weight & Long HA chains provide easy aspirations
- Shows high elastic behaviour that enables better stress absorption
- Reversible viscosity with shear thinning provides smooth instrument movements and injections

Coating & Protection ⟷ **Space Maintaining & Shock Stress Absorption**

Visco-Elasticity

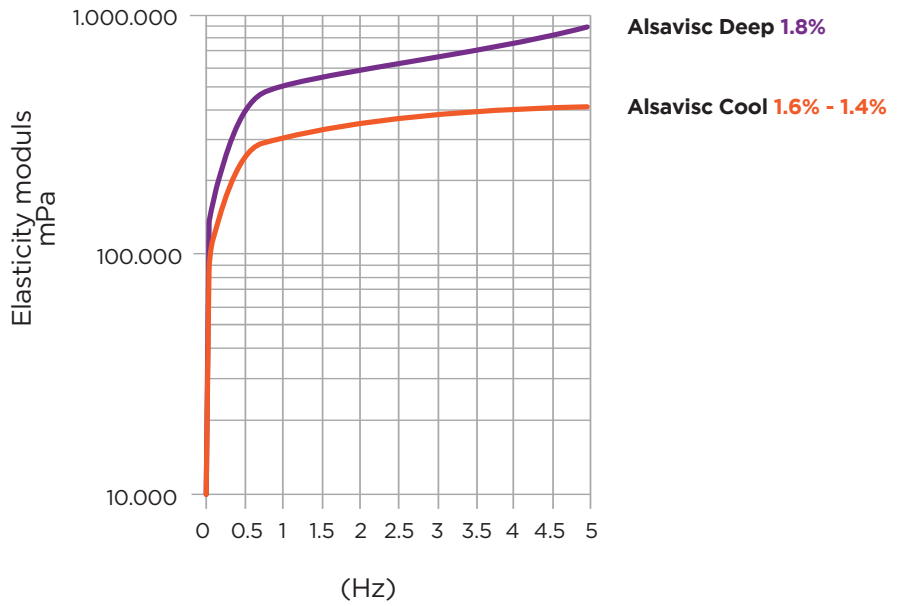
Viscosity of Alsavics decreases to facilitate instrument manipulations and smooth injections by ‘thinning’ as shear stress increases.



- **Alsavisc Cool 1.6% - 1.4%**
- **Alsavisc Deep 1.8%**
- **Alsavisc Diffuse 3.0%**

ZSV of Alsavisc **1.8%** is 600.000 mPas
ZSV of Alsavisc **1.6%** is 400.000 mPas
ZSV of Alsavisc **1.4%** is 200.000 mPas
ZSV of Alsavisc **3.0%** is 60.000 mPas

Elasticity of Alsaviscs increases with shear stress. Alsaviscs have tendency to maintain space and absorb high-compression stresses during phaco with their increasing elastic response.

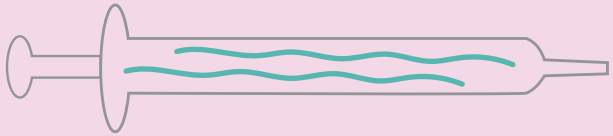


Elastic response of Alsaviscs simultaneously facilitates the return of the viscosity to its original state when shear stress ends.

Molecular Weight

Cohesive Alsavisc line has **3.000.000Da**
Molecular Weight Sodium Hyaluronate

- Well entanglement with long chains
- Easy aspirations
- Better space maintenance & shock absorption with higher visco-elastic properties



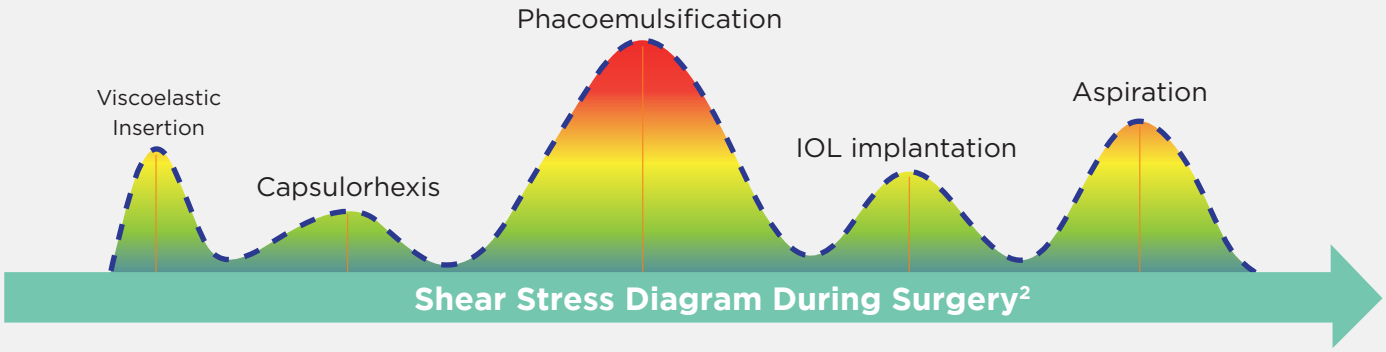
Cool
1.4%
1.6%

Deep
1.8%

Dispersive Alsavisc Diffuse has **750.000Da**
Molecular Weight Sodium Hyaluronate

- Well dispersion with short chains
- Higher surface affinity to endothelium cells
- Better coating and retention performance in eye during phaco.

Diffuse
3.0%



Expectations	CCC	Phaco	IOL implantation	Final Asp.
Ease of Injection	COHESIVE SODIUM HYALURONATE, DISPERSIVE SODIUM HYALURONATE			
Creating and maintaining Space	COHESIVE SODIUM HYALURONATE	COHESIVE SODIUM HYALURONATE		
Corneal Endothelial Cell & Lens Epithelial Cell Protection – Coating	DISPERSIVE SODIUM HYALURONATE	DISPERSIVE SODIUM HYALURONATE	DISPERSIVE SODIUM HYALURONATE	
Supporting Instrument Manipulation	COHESIVE SODIUM HYALURONATE, DISPERSIVE SODIUM HYALURONATE	COHESIVE SODIUM HYALURONATE	COHESIVE SODIUM HYALURONATE	
Shock stress absorption		COHESIVE SODIUM HYALURONATE	COHESIVE SODIUM HYALURONATE	
Deepen and stabilize AC		COHESIVE SODIUM HYALURONATE	COHESIVE SODIUM HYALURONATE	
Balancing the pressure of posterior and anterior chamber		COHESIVE SODIUM HYALURONATE	COHESIVE SODIUM HYALURONATE	
Absorbing the pressure created by IOL			COHESIVE SODIUM HYALURONATE	
Ease of removal				COHESIVE SODIUM HYALURONATE, DISPERSIVE SODIUM HYALURONATE

COHESIVE
SODIUM HYALURONATE

Cool Deep

		Rheology	Concentration	Molecular Weight	Zero Shear Viscosity	Volume	Origin	Cannula	Osmolality	pH Value	Storage Condition
Cool	**Alsavisc 1.4%**	Cohesive	14 mg/ml	3 MDa	200.000 mPas	1.1 ml	Biofermented	27 G	300-350 mOsm/kg	6.8-7.6	2-25 °C
	Alsavisc 1.6%	Cohesive	16 mg/ml	3 MDa	400.000 mPas	1.1 ml	Biofermented	27 G	300-350 mOsm/kg	6.8-7.6	2-25 °C
Deep	**Alsavisc 1.8%**	Cohesive	18 mg/ml	3 MDa	600.000 mPas	1.1 ml	Biofermented	27 G	300-350 mOsm/kg	6.8-7.6	2-25 °C

Table taken from reference 3

DISPERSIVE
SODIUM HYALURONATE

Diffuse

		Rheology	Concentration	Molecular Weight	Zero Shear Viscosity	Volume	Origin	Cannula	Osmolality	pH Value	Storage Condition
Diffuse	**Alsavisc 3.0%**	Dispersive	30 mg/ml	0.75 MDa	30.000 mPas	1.1 ml	Biofermented	25 G	300-350 mOsm/kg	6.8-7.6	2-25 °C

Table taken from reference 3

References:
1.Review of Ophtalmology Understanding and Using the Full Spectrum of OVDs Devgan, MD, FACS, Sun Valley, Calif. PUBLISHED 2009
2.Curr Opin Ophthalmol. 2008 Jan;19(1):50-4
3.Data on file.

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ALSANZA
Medizintechnik und Pharma GmbH
Alsanza Medizintechnik und Pharma GmbH Hermann-Burkhardt-Str. 3 72793 Pfullingen / Germany
Phone. +49 7121 69065 20 E-mail. info@alsanza.com