

BELLENAR



Humedix

HA Filler of Next Generation



○ Contents

- BELLENAR × **Brand Story**
- BELLENAR × **High-quality material**
- BELLENAR × **Superior property**
- BELLENAR × **Features**

BELLENAR **Brand story**

bellamente + llenar

beautifully + filling



BELLENAR

BELLENAR

Filling beautifully, "**BELLENAR**"



BELLENAR Material

Test Items	Specification	Reference to Standard
Appearance	White or almost white, very hygroscopic powder or fibrous aggregate	EP
Identification	1) IR comparison with STD spectrum 2) Na ⁺ positive reaction	EP
Assay (as dry)	95.0 ~ 105.0 %	EP
Appearance of Soln.	Meets the requirements	EP
pH	5.0 ~ 8.5	EP
Intrinsic viscosity	2.97 ~ 3.96 m ³ /kg	EP
Nucleic acids	Maximum 0.5 (Abs 260nm)	EP
Protein	Maximum 0.1 %	EP
Chlorides	Maximum 0.5 %	EP
Iron	Maximum 80 ppm	EP
Heavy metals	Maximum 10 ppm	EP
LOD	Maximum 20.0 %	EP
Microbial contamination	< 100 CFU/g	EP
Bacterial endotoxins	< 0.05 EU/mg (EP) < 0.03 EU/mg (in house)†	EP
Sterility	Sterile	in house spec.

EP-standard Meeting HA



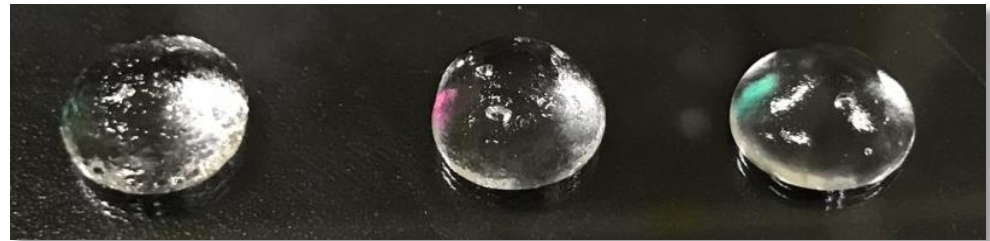
Specialized Aseptic Manufacturing Method



Aseptic Manufacturing Plant (Humedix)

- Aseptic Ingredient with pharmaceutical grade
The Same API used for Injections & Eye drops
- Patent applied for Sterilizing Device and Method of HA

BELLENAR Properties



**Bellenar
Volume**

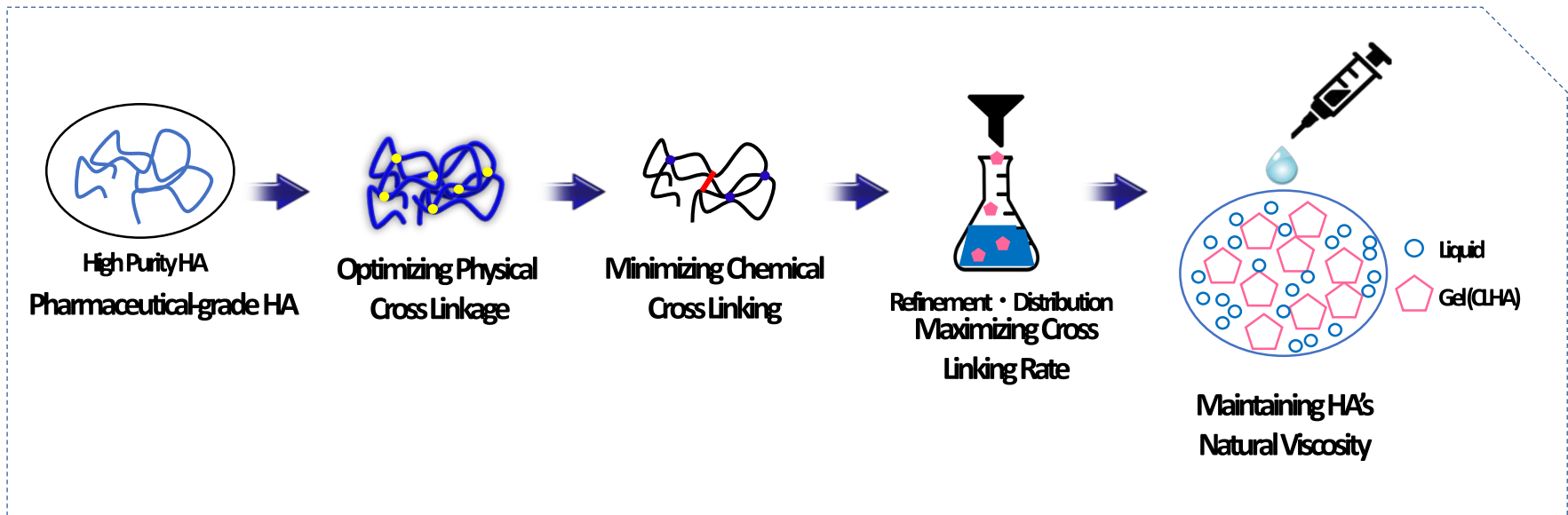
**Bellenar
Deep Line**

**Bellenar
Light**

BELLENAR Superior Properties

HiVE Tech

High ViscoElasticity



Excellent Viscoelasticity and Cohesiveness



Excellent In-body Tissue Repairing Effect

BELLENAR Superior Properties

Product Name	HA Concentrate (mg/ml)	Complex Viscosity (Pa.s)	Elasticity (Pa)	Shear Viscosity (Pa.s)	Phase angle(δ)	Injection force(N)	Cross-Linkage (%)	Manufacturing Method
Restylane Perlane	20	83	515	350	7	14(regular)	1~3%	Biphasic
Yvoirre Volume	24	46 ~49	307	320	7	16(irregular)	4%	Biphasic
Perfectha Deep	20	48	298	281	8	15(irregular)	5%	Biphasic
Bellenar Deep line	20	84	526	352	8	Below 4N	1 ~2%	Biphasic

High-viscoelastic Filler

Low dosage of cross linking agent

> Manufacturing HA using less than 2% cross-linking rate

Humedix HiVE Tech

High ViscoElasticity



BELLENAR Superior Properties


* Comparison between Bellenar and competitors

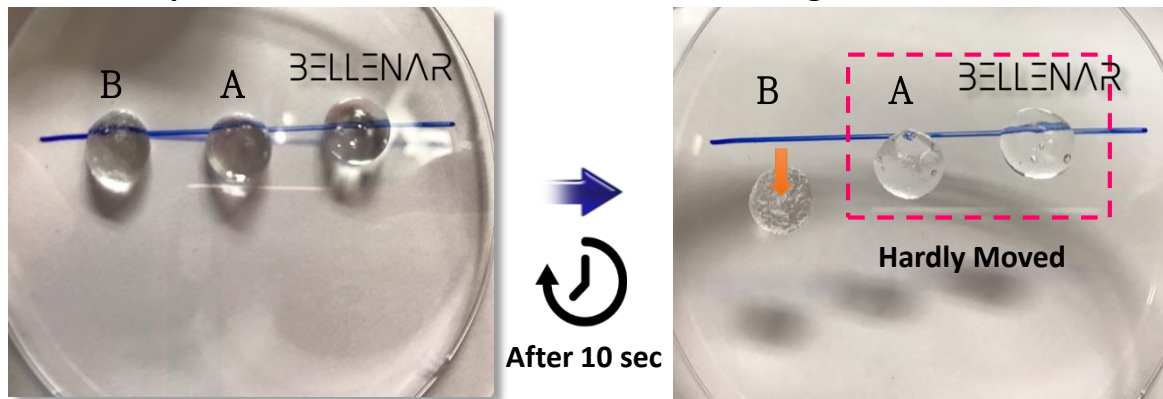
Product name		Bellenar Volume	Bellenar Deep Line	Bellenar Light
Grinded size		500µm	250µm	100µm
Content (%)		20mg	20mg	20mg
Rheology	Shear viscosity (Pa.s)	419	352	385
	Complex Viscosity (Pa.s) (1.0Hz)	89	84	74

Comparison between Product A and B

ViscoElasticity & Shear Viscosity



 When same amount of Bellenar and comparing third party product was squeezed out on a petri dish and was tilted more than 70 degrees.



Comparison between Product A and B

BELLENAR Adhesion



BELLENAR Superior Properties

* Differentiated LINE UP with 3 products according to usage

Product Name		Bllenar volume (LTD51-1722-01)	Product A	Product B
Grinded size		500 μ m	500 μ m	500 μ m
Content(%)		20mg	20mg	20mg
Rheology	Shear viscosity (Pa.s)	419	274	310
	Complex viscosity (Pa.s) (1.0Hz)	89	89	73
	Phase Angle	6	8	7

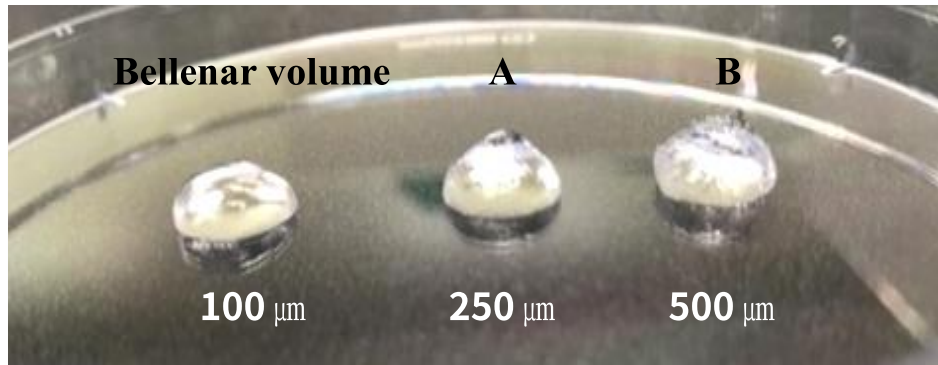
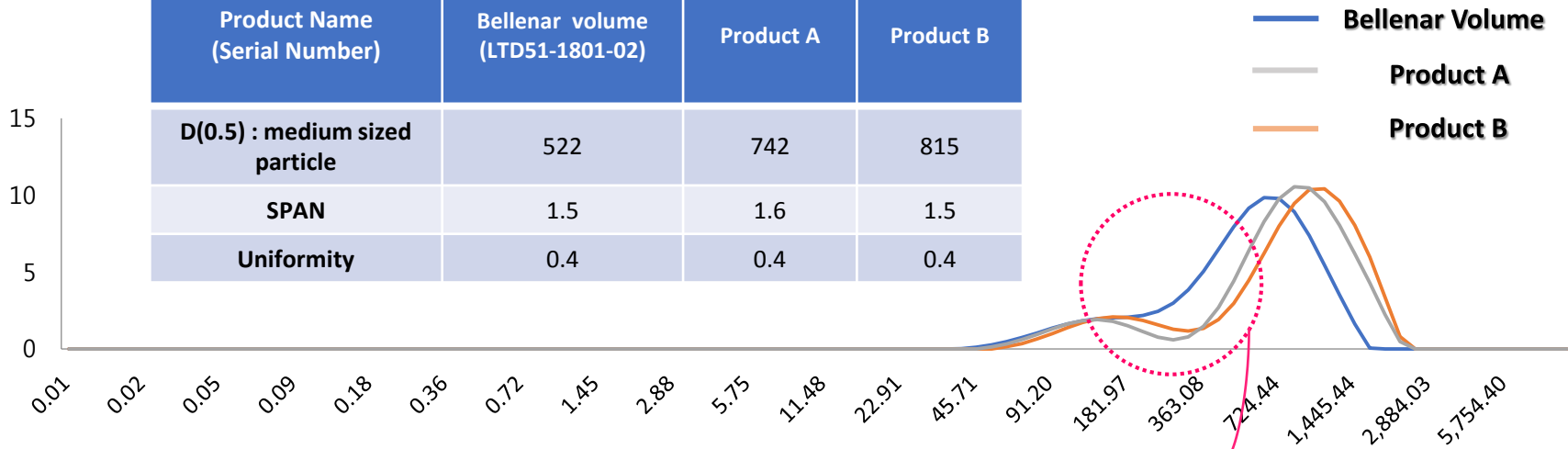


Model	Light	Deep Line	Volume
Particle size	100 μ m	250 μ m	500 μ m
Gel height	6mm	8mm	10mm

BELLENAR Features

① Uniform Particles

Product Name (Serial Number)	Bellenar volume (LTD51-1801-02)	Product A	Product B
D(0.5) : medium sized particle	522	742	815
SPAN	1.5	1.6	1.5
Uniformity	0.4	0.4	0.4



Uniform distribution of
Particles

Low Injection
 Pressure

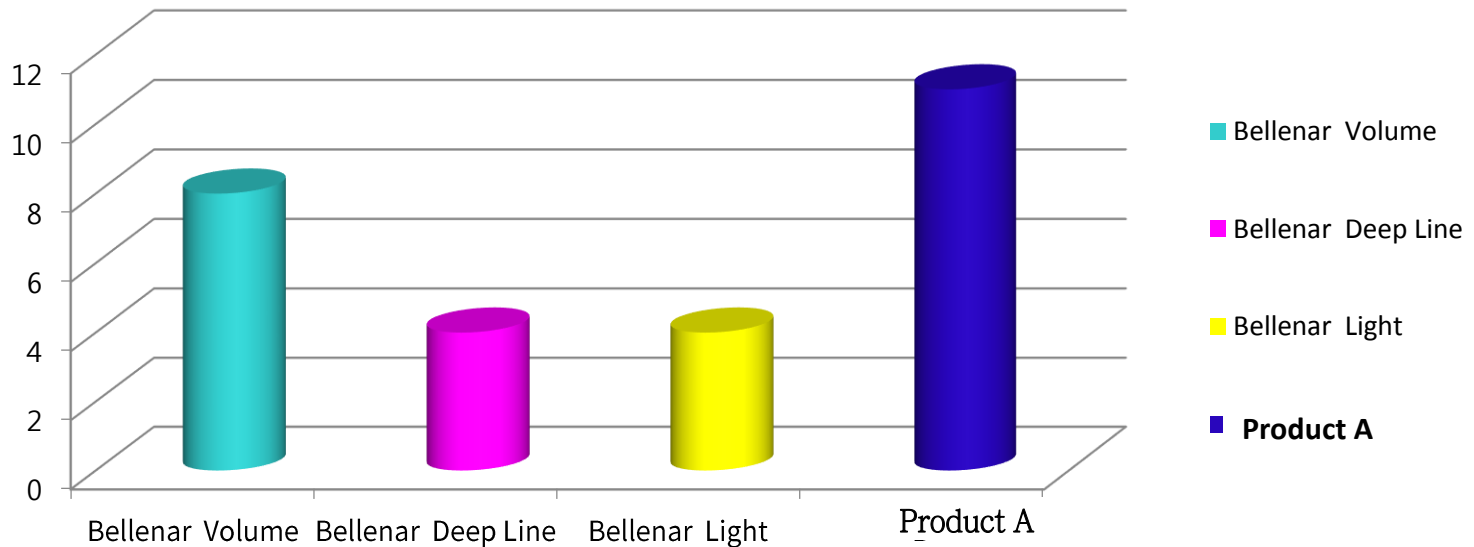
Minimizing possibilities of side-effect

BELLENAR Features

② low injection pressure

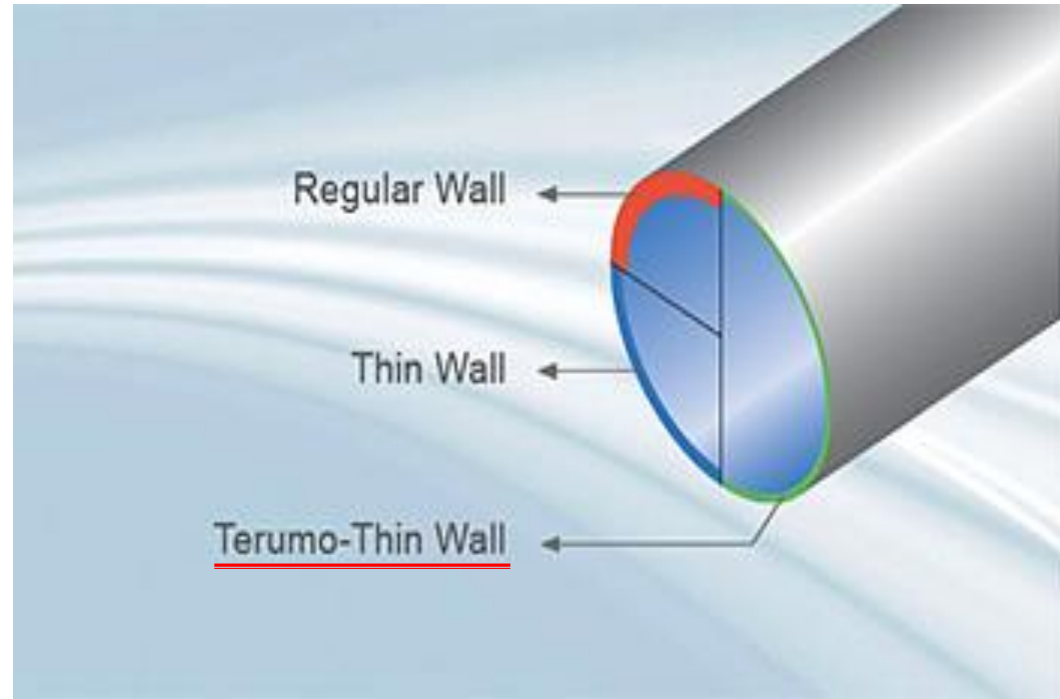
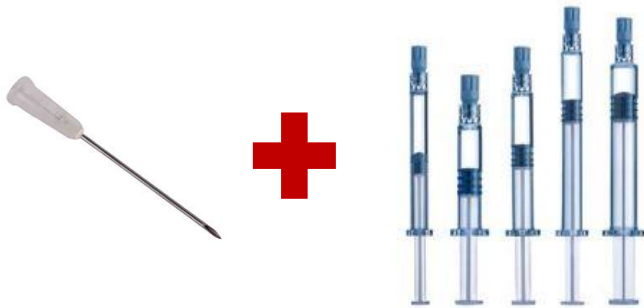
Product Name	Bellenar Volume	Bellenar Deep Line	Bellenar Light	Product A
Grinded size(μm)	500	250	100	250
Injection Pressure(N)	8	4	4	10~12

Injection Pressure



BELLENAR Features

③ Terumo-Thin Wall



Optimized Syringes & Needle

- SCHOTT company's high transparency syringe with COC material
- Teurmo company's Thin Wall needles have low injection pressure

which makes detailed surgical procedures easy.



Maximization of user convenience
in surgical procedure
+
Minimization of side effect

BELLENAR

BELLENAR

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