LAVUEL PIUM

PDLLA Collagen Dual Effector

* LAVUEL

A compound word of Lavish + Volume + Elasticity.

It is a professional cosmeceutical brand that restores vitality to cells.





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- 3. Product overview
- 4. Product line-up
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1. Intro

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High value, eco-friendly, bio-green technology, Microsphere

What is a Microsphere?

- It means a small spherical fine particle. It is a key ingredient of 4th generation fillers that functions as a collagen stimulator.
- While HA fillers have a simple filling effect, powder fillers induce skin tissue regeneration to remove wrinkles naturally.



High precision

- Fine particles with perfect spherical shape
- Microsphere with uniform size



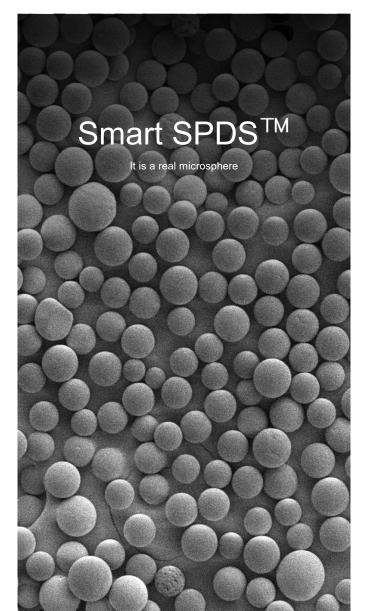
Hard type particle

- Stable spherical shape in mechanical process
- Stable and consistent degradation in the body



Duration Control

- Control duration by polymer type & property
- Expansion of application with drug release tech.



What is a biodegradable polymer?

- It is a polymer that can be hydrolyzed in the body and is widely used as a major ingredient in cosmetics, tissue engineering devices and depot formulas.
- There are various biodegradable polymers such as PLLA, PDO and PCL that have been used for a long time and they have various physical properties depending on composition and molecule size.

A wide technology application

- Easy expansion due to low production cost
- Applicable to various biodegradable polymers



Excellent safety

- Suture material used for a long time
- Complete absorption in the body after action



Economics & Productivity

- Economic microsphere process from nm to µm
- 90% excellent yield that is much higher than other methods



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2. Technical point

A unique flatform technology for uniform spherical microspheres, **Smart SPDS**TM

Smart SPDSTM?

It is a very unique technology that can mass-produce microspheres of uniform size from nano to micro size.

High quality microsphere. unique platform tech. of mass-producing uniform spherical particles.



Control duration in body Microspheres with different duration in body with precision control



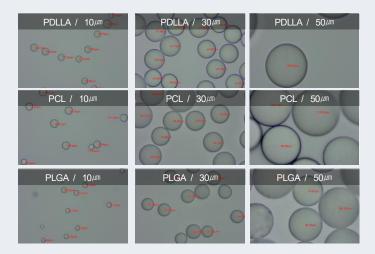
Broad application
Widely applicable to medicinal,
medical, cosmetic fields.





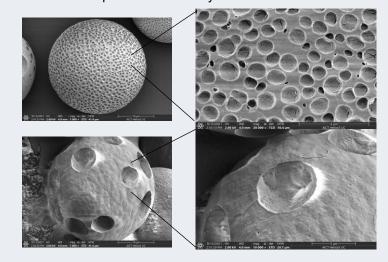
Spherical Microparticle

- Free control of size according to the membrane pore size.
- · Various application with PDLLA, PCL, PLGA and etc.



Porous Microsphere

- Easy to produce porous microsphere
- · Control the pore size and density



Traditional Method Vs. Smart SPDS™

Traditional Method (Emulsion, spray)	Comparison	Smart SPDS™ (Membrane)	
X	Fine control	0	
About 30%	Yield	Over 90%	
X	Sphericity	0	
Thick needle (high force)	Injection force Fine needle (Low force)		
Not enough	Reproducibility Excellen		

Batch Reaction Vs. Continuous Method

Batch Reaction	Comparison	Smart SPDS™ (Continuous Method)	
0	Potential risk	X	
0	New design for large scale	X	
0	Uniformity Issue	X	
0	Large space for m <u>a</u> ss production	X	
0	Reproducibility issue	X	

2. Technical point

Why is uniform particle shape & size important?

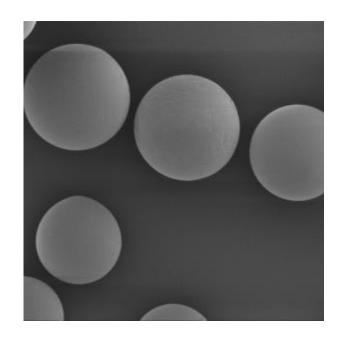
1. Safety – significantly reduces risks of granuloma formation

One of the contributing factors to granuloma formation is particle size and surface properties.

Particles that are larger or have irregular surfaces are more prone to triggering an inflammatory response leading to granulomas. Lavuel's particles have a perfect spherical shape and uniform size which effectively minimizes this risk.

2. Other advantages of uniform particle shape & size

- · Steady and predictable collagen production
- More even skin texture improvement
- · Reduced risk of clumping or overcorrection in one area
- More predictable flow through the needle/cannula = finer control for doctors



3. Product overview



Preservative-free, surfactant-free freeze-dried powder and aseptic liquid formulation

Mesotherapy?

Mesotherapy is a method of injecting mixed active ingredients into the skin or just under the skin. There is almost no pain because it uses a much thinner needle (4-6 mm) than a general needle (12 mm). It is an effective skincare method created by Dr. Pistol in 1952 by applying modern medicine and procedures used in various fields such as scalp, pain, and obesity.

LAVUEL PDLLA Collagen Stimulator

PDLLA(Poly D,L-Lactic acid) microsphere

1st

- 1. Collagen stimulation effect
- Freeze-dried formulation
- 3. Sterile, Endotoxin-Free
- It helps reduce wrinkles through collagen stimulation by microspheres.



LAVUEL PDLLA Collagen Booster

50 Kinds of skin nutrients

2nd

- 1. 50 kinds of skin nutrients
- 2. Contains amino acids identical to skin composition
- 3. It also contains a lot of whitening ingredients
- Improves skin texture by delivering various nutrients into the skin.

^{*} Both products are pure sterilized products that do not contain additives such as preservatives and surfactants.

4. Product Line-up

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5 vial packaging for professional supply

Information	LAVUEL PIUM - PDLLA Collagen Dual Effector X5	
Pictures	William Control of the Control of th	
Component	PDLLA Collagen stimulator 5EA PDLLA Collagen Booster 5EA	
Amount	PDLLA Collagen stimulator : Powder 100mg * 5vials PDLLA Collagen Booster : Liquid 6mL * 5vials	
Effect	Fine wrinkles, skin texture improvement and moisturizing	
Storage	Store at room temperature below 30°C, do not freeze. expiration	
Expiration period	24 months	



5. Product Features

Powder filler with uniform size and spherical microsphere

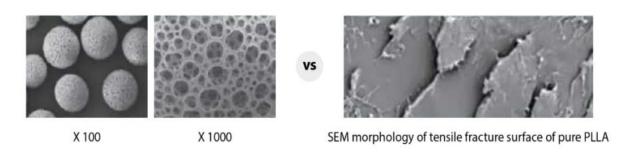
	I I I I I I I I I I I I I I I I I I I	'				
Section	Lavuel Pium	Sculptra	Aesthefill	Juvelook	Ganafill	Ultracoll
Microscope	00000	Specialini Siz 95 un				45.91µm 70.86µm
Product Image	WUEL 200 STATE OF THE STATE OF	Reconstitute with 5 miles service and 150 mg / 5 miles service water for injection. For subcollaboration of deep demail injection of deep demail injection. 1 vial Scalebra* Scalebra* To miles and 150 mg / 5 miles an	200 TOTO I WAS IN THE PARTY OF	Juve Jook The Mark Miles of LL 2 So mayord So mayord The Mark Miles of LL 2 The Miles of LL 2 The Mark Miles of LL 2 Th	GANAV GANAV STANDAR	UltraV ULTRACOL 200 90'y & Groatone Flav Stranging Stranging
Developer	JAYSEAN Co., Ltd.	Galderma, Inc.	Regen biotech, Inc.	Vaim Co., Ltd.	GCS Co., Ltd.	Uitrav Co., Ltd.
Ingredient	PDLLA	PLLA	PLA	PDLLA	PLLA	PD0
Duration	24 months	24 months	12 months	24 months	24 months	6 months
Manufacturing technology	Smart SPDS™	Grinding	Spray	Spray	Grinding	Emulsification
Spherical shape	Ο	Χ	Δ	Χ	Χ	Δ
Uniformity	0	X	Χ	X	Χ	Χ
Yield	More than 90%	Less than 30%	Less than 30%	Less than 30%	Less than 30%	Less than 30%

5. Product Features

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Advantages of PDLLA

SEM Image of PDLLA vs PLLA



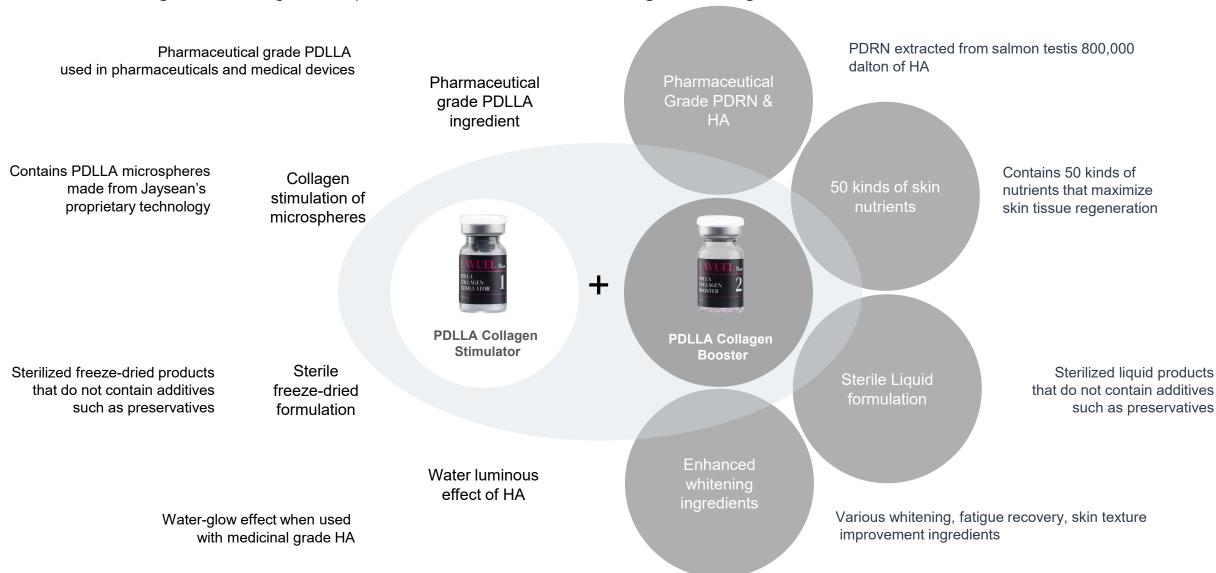
PDLLA	PLLA		
More immediate effect	Gradual onset that can take up to 8 weeks		
Reduced likelihood of granuloma formation	Increased likelihood of granuloma formation		
Reduced migration risk	Increased migration risk		
Porosity of PDLLA microspheres also provides a stronger scaffold for collagen growth	Solid and non-porous nature		



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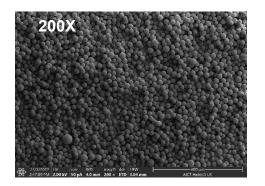
5. Product Features

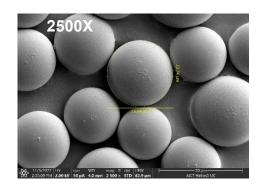
Contains **PDLLA ingredients** of 4th generation powder filler, **PDRN and various skin regeneration ingredients**

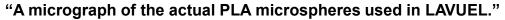


6. Key ingredients

Complex effect of PDLLA collagen stimulator and 50 kinds of skin nutrients









PDLLA(Poly D,L-Lactic acid)?



PDLLA is a biodegradable eco material with good bio-absorbability and bio-compatibility. After degradation in the body, PDLLA products are excreted by metabolism and thus have no harmful side effects to the human body. It is for these reasons that PDLLA products are currently widely used in the field of medicine, such as for one-time infusion equipment, surgical sutures, drug delivery carriers, injectable microsphere implants, elastomeric materials for organ support, etc.



AMINO ACIDS

- Basic unit of human protein
- Basic nutrients for skin tissue recovery

L-Alanine, L-Arginine, L-Aspartic acid, L-Cysteine, L-Glutamic acid, L-Glycine, L-Histidine, L-Hydroxyproline, L-Isoleucine, L-Leucine, L-Lysine, L-Methionine, L-Phenylalanine, L-Proline, L-Serine, L-Threonine, L-Tyrosine, L-Valine 18 types

VITAMINS

- Catalysts that promote biological performance
- Contains Vitamins B to promote cell regeneration

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Ethyl ascorbic acid, Thiamine HCI, Riboflavin, Nicotinamide, Calcium pantothenic acid Pyridoxine HCI, Biotin, Inositol, Folic acid, Cyanocobalamin 10 types

MINERALS

- Helps to balance skin moisture and nutrients
- Skin barrier restoration & immune regulation

Potassium Chloride, Magnesium sulfate, Sodium phosphate monobasic, Sodium phosphate dibasic, Sodium bicarbonate, Sodium chloride 6 types

PEPTIDES

- A protein fragment that helps in skin creation
- Stimulation of collagen and elastin

Nicotinoyl Tripeptide-1, sh-Octapeptide-4, sh-Decapeptide-7, Caffeoyl sh-Decapeptide-9, sh-Oligopeptide-1, sh-Oligopeptide-2, sh-Polypeptide-11, sh-Polypeptide-62, sh-Polypeptide-8 9 types

OTHERS

- Enhanced whitening and anti-aging ingredients
- Moisturizing, immunity improvement

Sodium DNA, Hyaluronic acid, Trehalose, Arbutin, Glutathione, Taurine, N-Acetyl cysteine 7 types

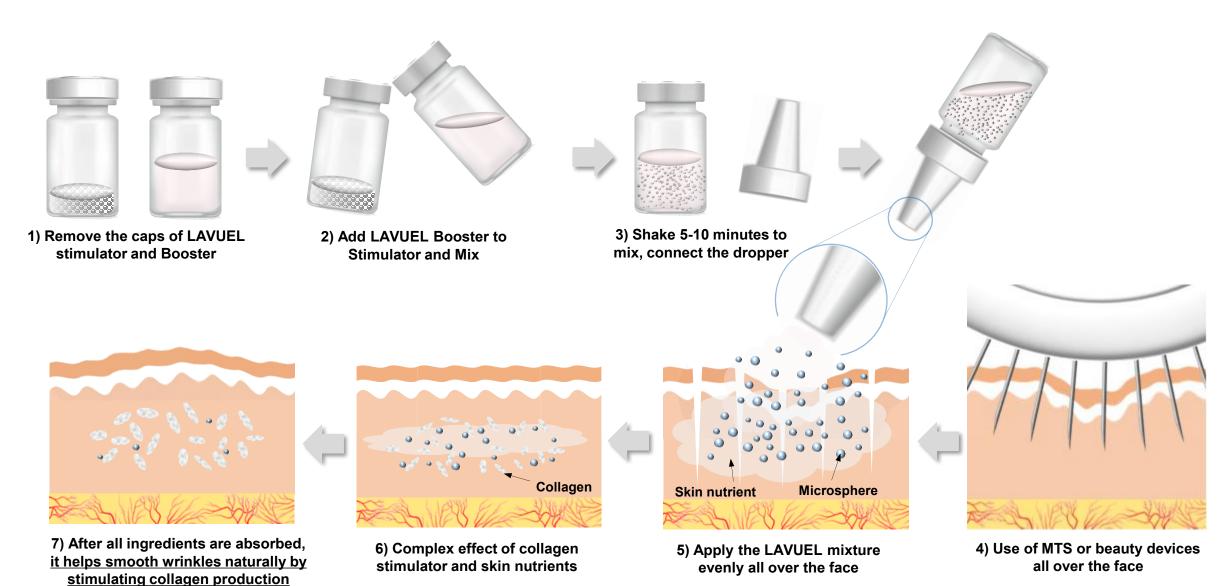


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7. How to use

within the skin.

Easy-to-use and safe vial type sterilization products



8. Treatment information

Prescription methods and information optimized for the skin improvement cycle



LAVUEL Dual effecter is used 3 times at 2 week intervals, and 2 times at 1 month intervals in the recovery stage.

^{*} It can be used with various beauty devices, and you can expect an even better effect.







- If you want to improve skin problems
- ✓ If you want an anti-aging effect
- ✓ If you have many fine wrinkles
- ✓ If your skin is dry and flaky/rough
- If you want to improve pores and increase elasticity
- If you want to brighten your skin tone

8. Treatment information

Before & After





9. Certification

Specialized company for Bio-Nano fusion technology

JAYSEAN Co., Ltd. is a biocompatible polymers based bio-material fusion technology company.

We aim to become a global standard company that develops new drugs and creates new markets through creative ideas, extraordinary expertise, and differentiated pipelines.

























특허증 CERTIFICATE OF PATEN

8842

SES Detail

발명자 Prestur 등록사항란에 기재 제 10-2427305 호

제 10-2022-0016022 3

국소 투여용 이중 봉입 생분해성 고분자 미립구의 제조방법 및 이를 포함하는 주사제

주식회사 바이오엔티(135811-******) 경기도 수원시 영통구 광교로 107, 경기도경제과학진흥원 창업보육센터 201호 (이의동)

위의 발명은 「특허법」에 따라 특허원부에 등록되었음을 증명합니다.

This is to certify that, in accordance with the Patent Act, a patent for the

2022년 02월 08일

2022년 07월 26일

Membrane emulsification method and device of parallel type for producing biodegradable polymer microsphere, and Producing method of injection composition using the same

Patent #: KR10-2377283

Application date: 2021.08,26

Registration date: 2022.03.17

A manufacturing method of double encapsulated biodegradable polymer microsphere, and the injection composition containing the same

Patent #: KR10-2427305 Application date: 2022.02,08 Registration date: 2022.07.26

JAYSEAM Where Beauty Meets Innovation

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