

LUCHeL^{*}

Product Introduction

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LUCHEL® Introduction



LUCHEL*

Lu^{ce} ( n. Light) + Ch^{ange} + El^evation

"Where Light Creates Change and Elevates Skin"

LUCHEL*

LUCHEL® Introduction



Product	LUCHEL®
Ingredients	• Vial 1: PDLLA 160mg • Vial 2: HA + PN 3ml
Duration	2 Months (3 applications at 2-week intervals)
Efficacy	• Skin elasticity & texture • Skin hydration & rejuvenation

* PDLLA: Poly-D,L-Lactic Acid

* HA: Hyaluronic acid

* PN: Polynucleotide

LUCHEL® Introduction

LUCHEL® is a cosmetic skin booster formulated with PDLLA, HA and PN.



 **Collagen Production**

 **Skin Texture**

 **Skin Hydration**

 **Safe & Reliable**

Why PDLLA?

PDLLA is a biodegradable ingredient designed to support
natural collagen stimulation.

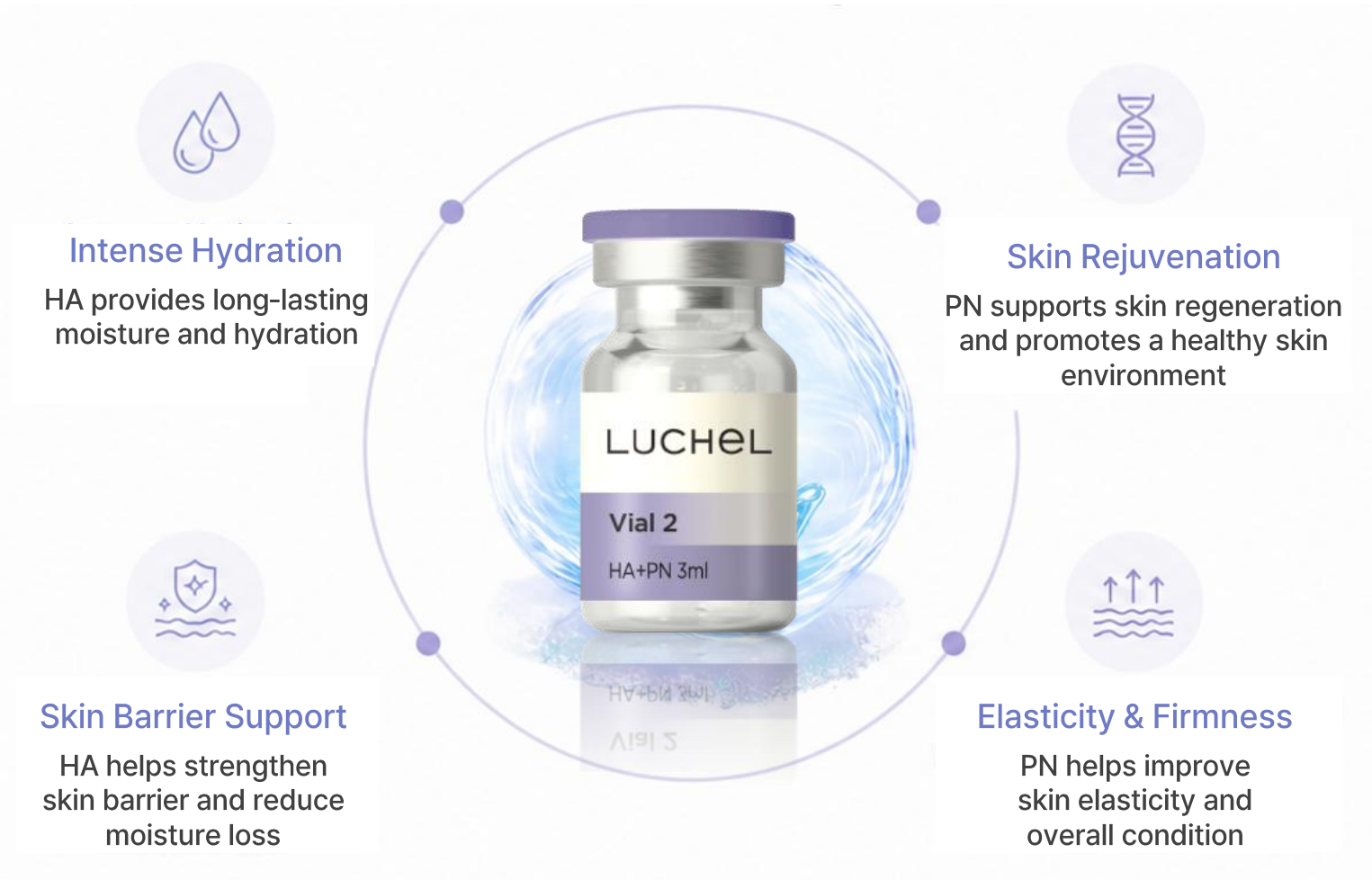


* The above information is limited to the characteristics of the raw material.

LUCHEL*

Why HA and PN?

HA and PN work synergistically to deliver
deep hydration, skin rejuvenation, and barrier support.

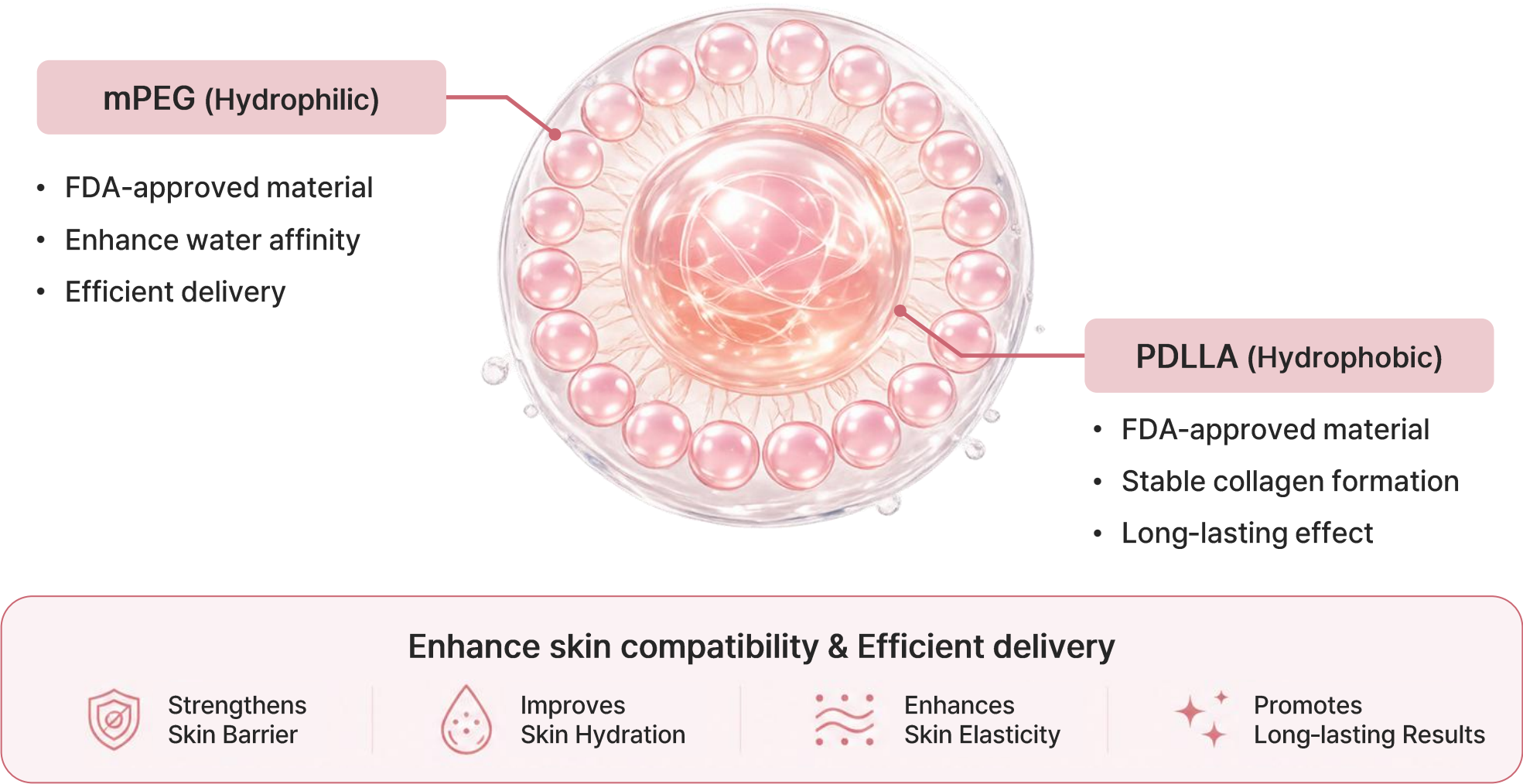


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LUCHEL® PDLLA Technology

LUCHEL® PDLLA features **amphiphilic polymer technology**.



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LUCHEL[®] PDLLA Technology

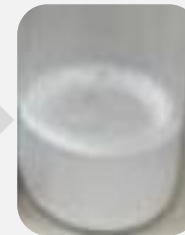
LUCHEL[®] PDLLA demonstrates **superior dispersion stability**, which supports complete solubilization and consistent skin delivery.

Conventional PDLLA

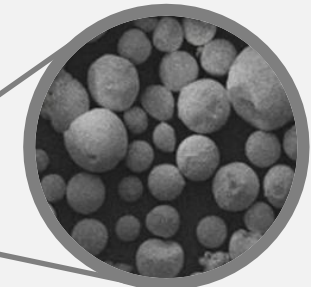
- Needs gel carrier (HA or CMC)
- 30 min preparation with a vortex device
- **Not fully solubilized & Low dispersion stability**



30 min



Microscopic view (×200)



20~80μm

LUCHEL[®] PDLLA

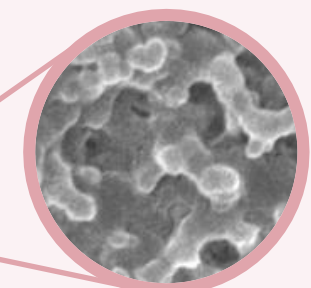
- Stable distribution with no gel carrier
- Ready in 1 min by hand or 10 sec with a vortex mixer
- **Fully solubilized & High dispersion stability**



2 hours



Microscopic view (×200)



< 50nm

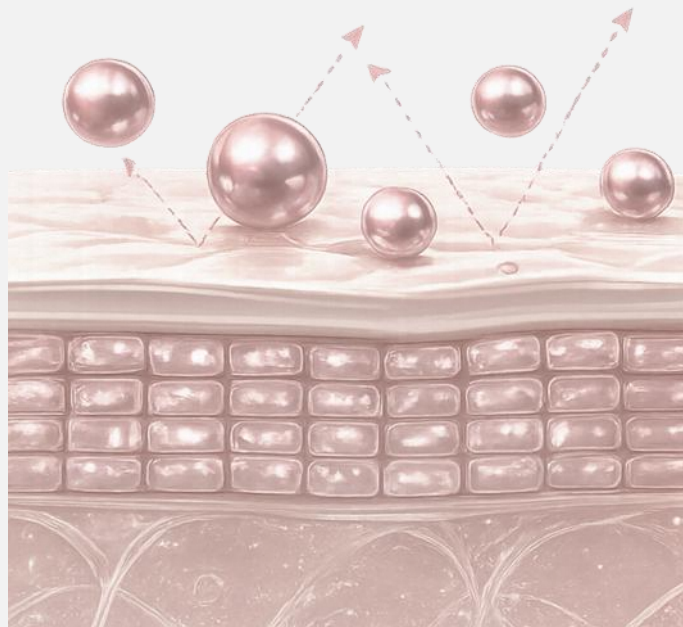
LUCHEL[®] PDLLA Technology

LUCHEL[®] PDLLA consists of **nano-sized particle assembly** smaller than an average skin pore, designed to enhance the delivery of ingredients into the skin.

Conventional PDLLA

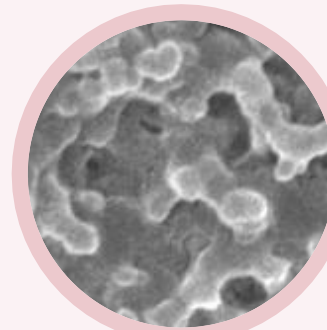


20~80μm

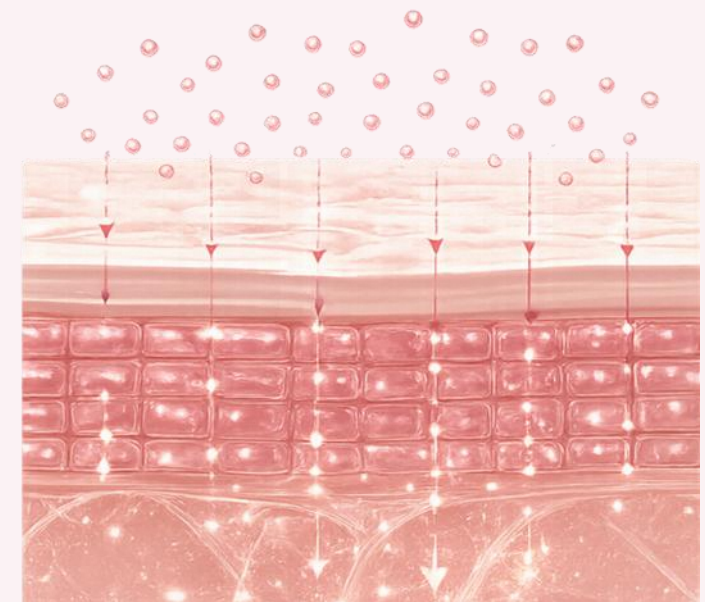


Relatively large microparticle
→ Remain on the skin surface with limited delivery

LUCHEL[®] PDLLA



< 50nm

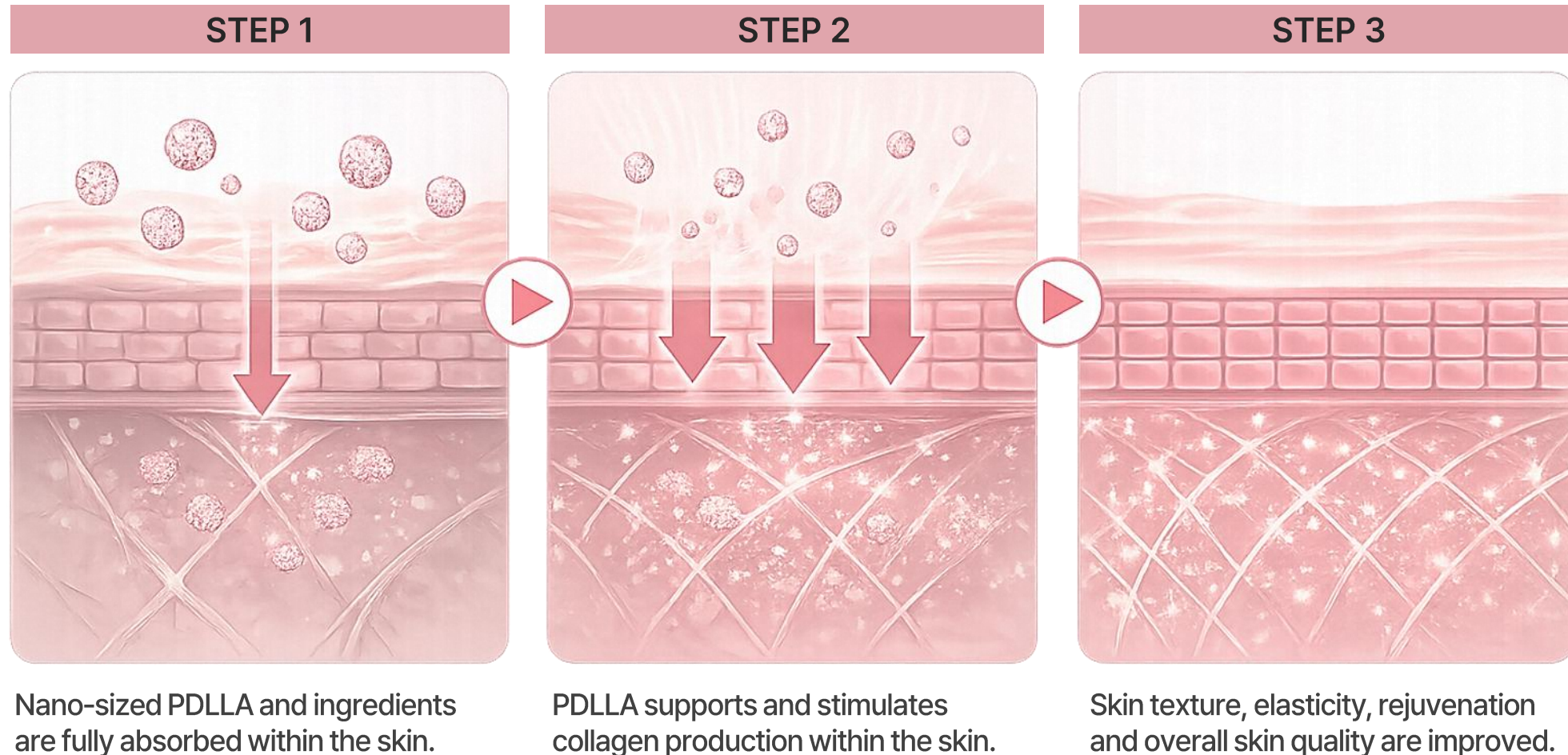


Nano-sized particle
→ Enhance the delivery of ingredients into the skin

* The above information is limited to the characteristics of the raw material.

LUCHEL® PDLLA Technology

By enhancing the delivery of active ingredients into the skin, LUCHEL® helps improve **skin texture, firmness, elasticity, and overall skin quality.**

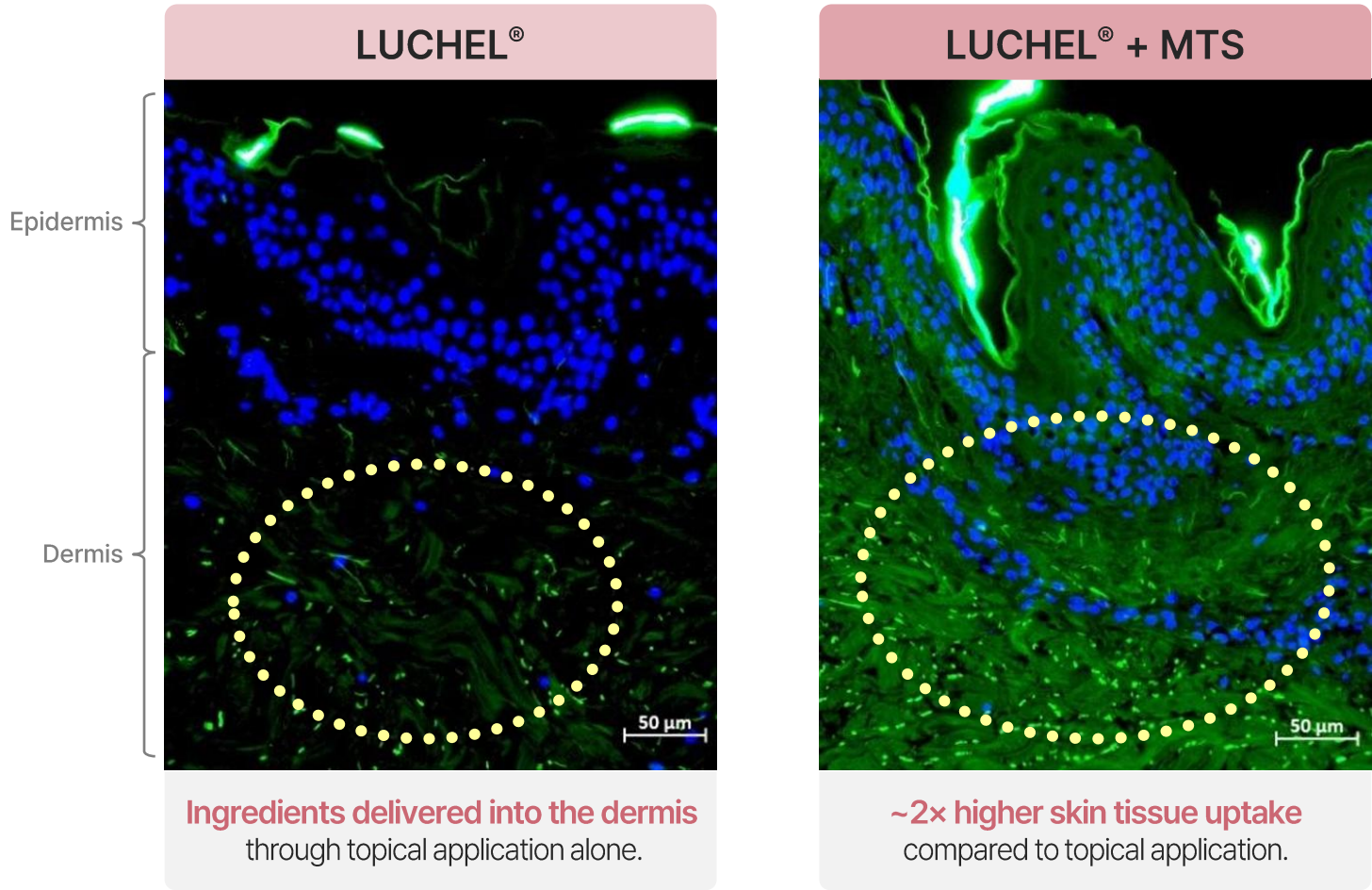


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Efficacy of LUCHEL[®]

LUCHEL[®] delivers active ingredients into the dermis through topical application alone, achieving approximately **2× higher skin tissue uptake with microneedling (MTS)**.



- Skin permeability test (Ex vivo human skin tissue)
- Test institute: Korea Biomedical Research Institute

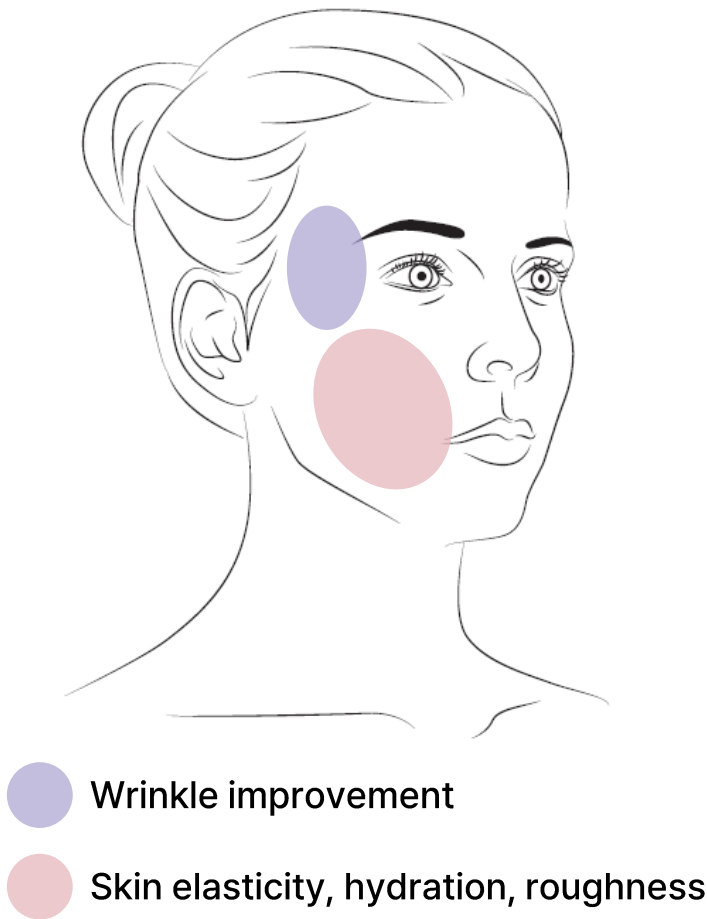
- Blue: Cell nuclei (DAPI)
- Green: LUCHEL[®] (Fluorescence)
- Scale bar: 50µm
- Magnification: 200×

Efficacy of LUCHEL®

- Human application test completed

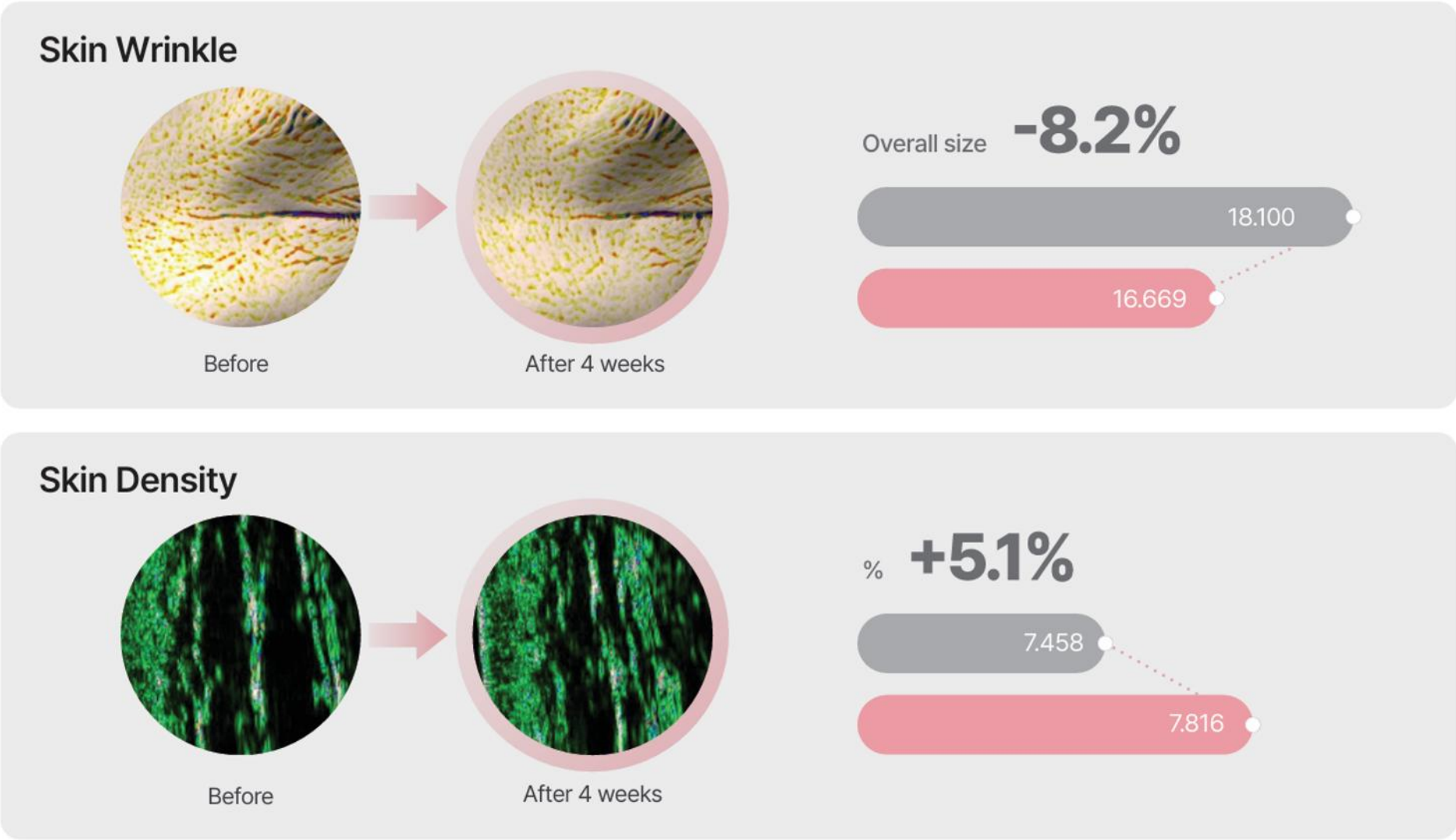
Protocol	
Design	• 2 treatment sessions at 2 weeks intervals • Apply the mixture of Vial 1 + Vial 2 and proceed microneedling (MTS)
Indication	• Crow's feet & Facial
Number of subjects	• 30 subjects
Target efficacy	• Wrinkle improvement (Crow's feet) • Skin elasticity • Skin hydration • Skin roughness

- Test institute: KC Skin Research Center Co., Ltd.
- Test Period: Nov. 20th, 2024 ~ Dec. 20th, 2024
- Number of Subjects: 30



Efficacy of LUCHEL[®]

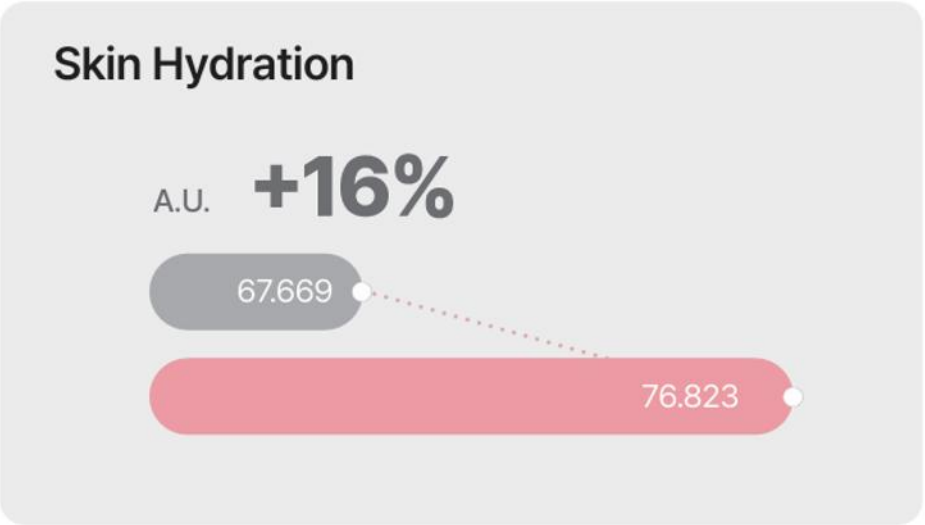
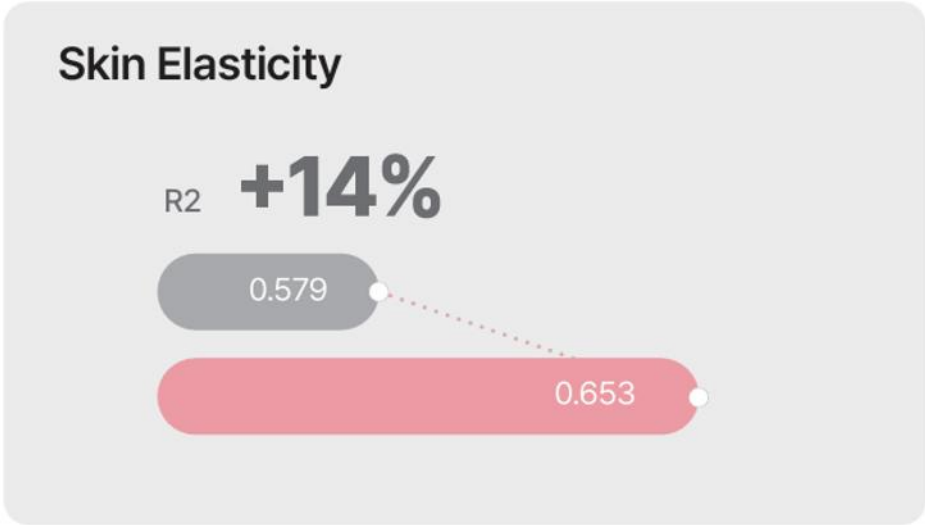
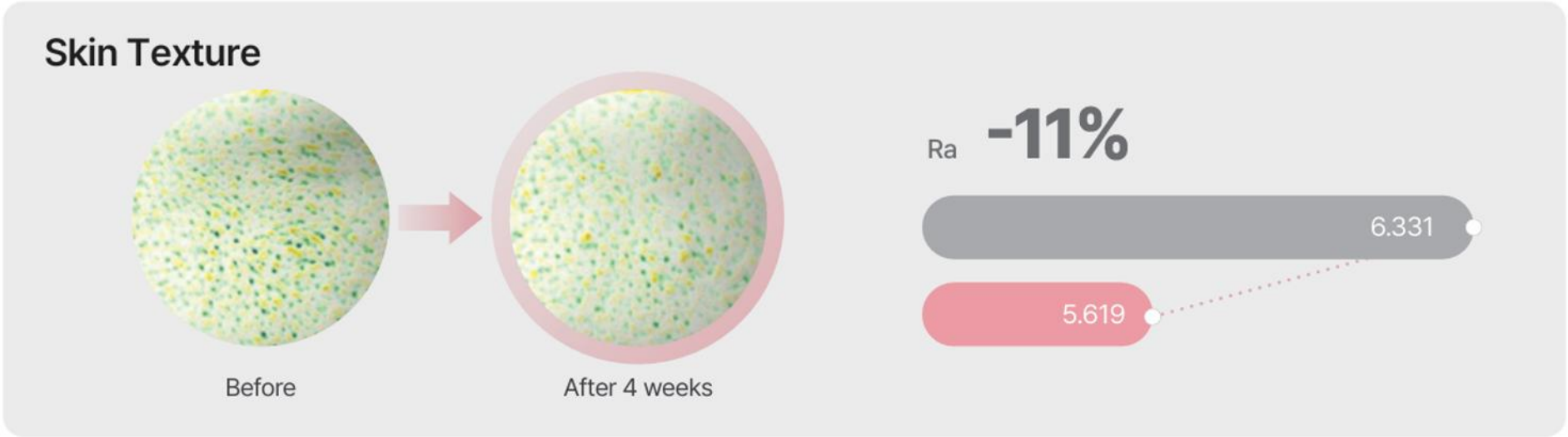
● Before ● After 4 weeks



- Test institute: KC Skin Research Center Co., Ltd.
- Test Period: Nov. 20th, 2024 ~ Dec. 20th, 2024
- Number of Subjects: 32

Efficacy of LUCHEL[®]

● Before ● After 4 weeks



- Test institute: KC Skin Research Center Co., Ltd.
- Test Period: Nov. 20th, 2024 ~ Dec. 20th, 2024
- Number of Subjects: 32



Skin irritation test completed

“ As a result of primary skin irritation patch test, LUCHEL[®] is evaluated as non-irritating product with 0.00 point of skin irritation. ”

- Test institute: KC Skin Research Center Co., Ltd.
- Test Period: Dec. 11th, 2024 ~ Dec. 13th, 2024
- Number of Subjects: 33

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Treatment Guide

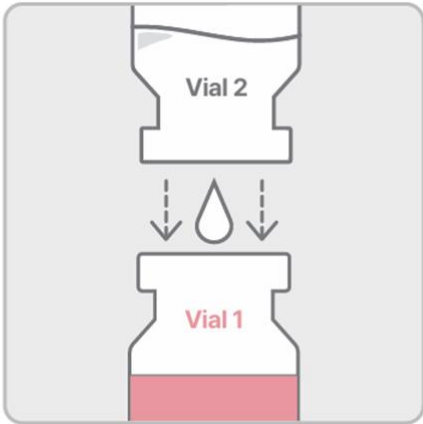
How To Use

STEP 1



Remove both the caps and the rubber stopper from both Vial 1 and Vial 2.

STEP 2



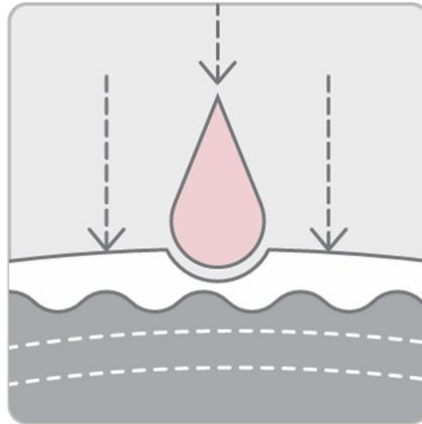
Pour the entire content of Vial 2 into Vial 1.

STEP 3



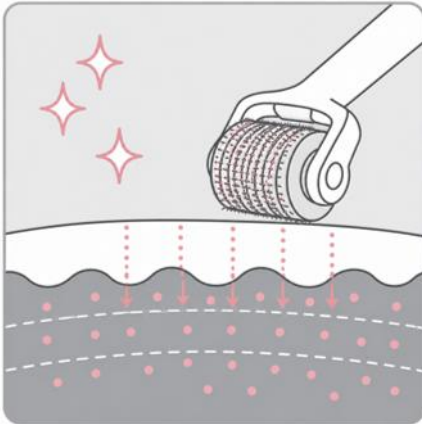
Secure the rubber stopper back onto Vial 1 and tap the vial until the power is fully dissolved.

STEP 4



Apply an appropriate amount of the mixture on the skin and let it absorb.

Optional



Enhanced results can be achieved when used in combination with microneedling (MTS).

* Needle length: $\leq 0.3\text{mm}$



3 applications at 2-week intervals is recommended.

LUCHEL® Treatment Guide



Treatment Guide

- Recommended treatment: 3 sessions at 2-week intervals
- Volume: Entire face (3ml/1 box), Face & Neck (6ml/2 box)

Application Area

- Entire face
- Neck

How to Use

- Mix Vial 1 and Vial 2 by tapping until the powder is fully dissolved.
- Apply an appropriate amount to the skin.
- Gently massage until fully absorbed.
- Use immediately after opening and mixing.
- For single use only. Do not reuse any remaining product.

Precautions

- For external use only. Avoid contact with the eyes.
- Do not apply to irritated, infected, or damaged skin.
- Ensure proper skin cleansing before application.
- Store away from direct sunlight and extreme temperatures.

* Treatment should be adjusted according to the patient's skin condition.

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LUCHEL® Treatment Guide – Microneedling (MTS)



Treatment Guide

- Recommended treatment: 3 sessions at 2-week intervals
- MTS Needle length: 0.3 mm or less
- Volume: Entire face (3ml/1 box), Face & Neck (6ml/2 box)

Treatment Area

Recommended

- Forehead, cheeks, chin, and cheekbones
- Neck (avoid the thyroid area)

Use with caution

- Around the eyes
- Around the nostrils
- Temples
- Lip border

Do not treat

- Upper & lower eyelids
- Lips

* Do not apply to irritated, infected, or damaged skin.

* Avoid excessive pressure or repeated passes over the same area.

LUCHEL® Treatment Guide – Microneedling (MTS)



How to Use

- Mix Vial 1 and Vial 2 by tapping until the powder is fully dissolved.
- Apply an appropriate amount evenly to the skin, then perform microneedling (MTS).
- A needle length of 0.3 mm or less is recommended.
- Use immediately after opening and mixing.
- For single use only. Do not reuse any remaining product.

Precautions for MTS Treatment

- For external use only. Avoid contact with the eyes.
- Do not apply to irritated, infected, or damaged skin.
- Use a sterile, single-use MTS needle and replace it for each patient.
- Ensure proper skin disinfection before treatment.
- Avoid excessive pressure or repeated passes over the same area.
- Store away from direct sunlight and extreme temperatures.

* Treatment should be adjusted according to the patient's skin condition.

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FAQ

LUCHEL® – FAQ

Q. What is LUCHEL®?

A. LUCHEL® is a PDLLA-based cosmetic skin booster formulated with HA and PN to help improve skin firmness, elasticity, hydration, and overall skin quality.

Q. Is LUCHEL® safe?

A. Yes. LUCHEL® is formulated with biodegradable ingredients, including PDLLA, HA, and PN, which have been widely used in medical and aesthetic applications. Developed using Samyang's own polymer technology, LUCHEL® features highly biocompatible PDLLA that supports natural collagen production while maintaining an excellent safety profile.

Q. How many LUCHEL® treatments are recommended, and how long do the results last?

A. We recommend 3 treatments at 2-week intervals. The results last for about two months.

Q. For which patient would LUCHEL® be good?

A. LUCHEL® is ideal for individuals concerned about skin dryness, loss of firmness and elasticity, fine lines, and uneven skin texture. Formulated with PDLLA, HA, and PN, it helps improve skin hydration, firmness, and overall skin quality.

LUCHEL® – FAQ

Q. Can LUCHEL® be injected?

- A. LUCHEL® PDLLA is composed of nano-sized particles which features amphiphilic polymer technology. It delivers benefits with topical application and provides enhanced results when used in combination with microneedling (MTS).

Q. What are the recommended treatment areas for LUCHEL®?

- A. LUCHEL® can be applied to the entire face in combination with microneedling.

Use with caution around the nostrils, lip border, temples, around the eyes, cheekbones, and chin.

Avoid the upper and lower eyelids, eye area, lips, and the thyroid area on the neck.

Q. What precautions should be taken during LUCHEL® treatment?

- A. When used with microneedling (MTS), a needle length of 0.3 mm or less is recommended.

Use a sterile, single-use MTS needle and replace it for each patient and ensure proper skin disinfection before treatment.

Avoid excessive pressure or repeated passes over the same area. Do not use on the eyelids or skin with wounds, infection, inflammation, or active acne. Use gentle pressure when treating thin or sensitive areas, such as around the nose, lip border, and temples.

LUCHEL[®] – FAQ

Q. Can LUCHEL[®] be combined with other aesthetic treatments? (e.g., toxin, filler, or thread lifting)

A. Yes. When used as a topical application only, LUCHEL[®] may be applied immediately after the other treatments.

When combined with microneedling (MTS), LUCHEL[®] treatment is recommended 2~3 days after botulinum toxin treatment, and 2 weeks after filler or thread lifting treatment.

Q. Can LUCHEL[®] be combined with EBD (Energy Based Device)?

A. Yes. When used as a topical application only, LUCHEL[®] may be applied immediately after the EBD procedure.

When combined with microneedling (MTS), LUCHEL[®] treatment is recommended 2~3 days after mild EBD procedure or at least 2 weeks after intensive EBD procedure.

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