



A unique raw material that works for skincare for both the inside and outside of the skin\*1 contains soluble beauty ingredients and fruit fibers

# Freeze-dried powder of the domestically produced fruit

(La France)



# LaFrance Powder Koken

La France is called the queen of fruit, having a noble fragrance.

LaFrance Powder Koken was developed by freeze-drying the flesh,
which contains multiple beauty ingredients, to preserve the benefits.

It is produced using a waterless method\*2, meaning it is formulated without water.
This powder contains soluble beauty ingredients as well as insoluble fruit fibers.
They collectively create a unique texture that resembles the flesh of real fruit.

## Commitment to materials and manufacturing method

#### Domestic materials

We use La France from Yamagata, the origin with the highest pear production in Japan. We collaborated with local companies in Yamagata to ensure clear and accurate traceability, with the faces of local farmers visible. Requests for interviews are welcomed.

#### Effective use of resources (sustainability)

We upcycled the whole fruit without wasting any. We ensure the eco-friendliness of the raw material because we effectively use the scarred or deformed non-standard fruits that are not for edible use.

## The fruit-derived skin-beautifying ingredients

The ingredients contain polyphenol for antioxidation and sugar for keeping moisture. Containing butyl acetate, a source of sweet scent, they are expected to relax you.

Polyphenol
Antioxidant ingredien

Butyl acetate
The relaxation effect
coming from a sweet scent

Natural sugar Moisture retention ingredient

Fruit acid
(AHA)
Peeling ingredient

# Sorbitol

Moisturizing/ Anti-inframatory ingredien

#### Pectin

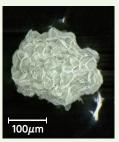
Thickening ingredient
The skin smoothing effect

# The gentle feel of fruit

If you apply LaFrance Powder Koken to the skin, you will have a unique feel.

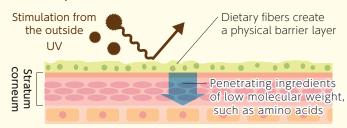
It comes from stone cells associated with texture that you can feel when having La France. Additionally, the fruit-derived insoluble fiber is expected to regulate skin cell turnover without damaging the skin. That is why you can use LaFrance Powder Koken to treat the horney layer subject to stiffening.





# Conceptual drawing showing how the powder work

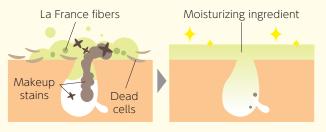
#### No-rinse product (Second skin fiber\*3)



The physical barrier layer consisting of insoluble ingredients prevents the skin surface from receiving external stimulation and provides an anti-inflammatory effect. Penetrating ingredients of low molecular weight care for the skin from the inside.

 $\boldsymbol{*3}\hspace{-0.05cm}:$  A generic name given to the fibers that form a skin-like membrane or layer.

#### Rinse-off product (Soft scrubs)



La France fibers gently remove the dead cells and dirt. Moisturizing ingredients, such as amino acids and natural sugar, moistly cleanse the face while also improving turnover.

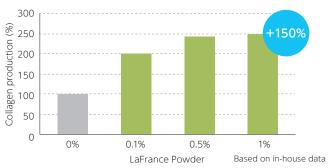
<sup>\*2:</sup> An extraction method without using water



#### Collagen production

#### Total amount of collagen

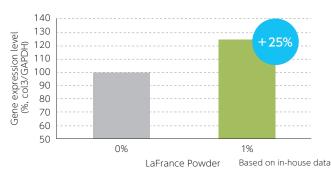
A sample was added to fibroblasts for seven-day cultivation. The collagen production rate after cultivation was measured.



The test confirmed the concentration-dependent collagen production effect. It is expected to promote the collagen production that tends to fall with age and improve the resilience of the skin.

#### Amount of Type III collagen

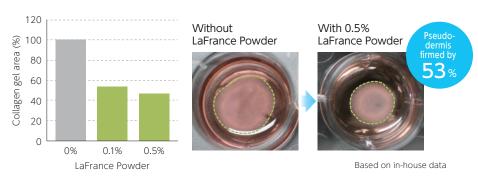
A sample was added to fibroblasts for three-day cultivation. The genetic expression of Type III collagen was determined in the cultivated cells.



The test confirmed the effect of producing Type III collagen. It is expected to increase Type III collagen, which is rich in baby skin and called "baby collagen".

#### Prevention of the loss of firmness and sagging

Pseudo-dermis with collagen\*4 was cultivated in a medium that contained the sample. The contraction rate of pseudo-dermis was measured after seven days of cultivation.

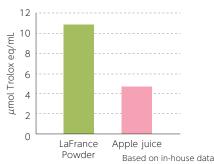


The test confirmed the concentration-dependent effect of firming pseudo-dermis. Therefore, LaFrance Powder is expected to prevent the loss of firmness and sagging.

\*4: Collagen gel with fibroblasts mixed

#### **Antioxidant**

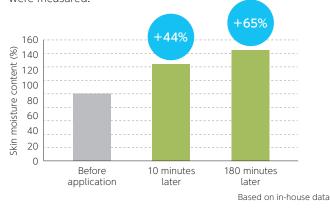
DPPH radical scavenging activity (antioxidation) was determined.



The higher antioxidant effect was observed, compared with the juice of apples similarly belonging to the rose family.

#### Moisturizing effect (human study)

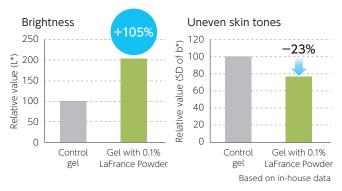
An aqueous solution with 0.1% LaFrance Powder was applied to the skin. Time-dependent changes in skin moisture content were measured.



Application of an aqueous solution with LaFrance Powder was found to have the effect of boosting moisture in the skin.

#### Brightening effect (human study)

Gel with 0.1% LaFrance Powder was massaged into the skin. After a certain period of time, skin tones were measured.



LaFrance Powder was found to have a brightening effect and effect on the reduction of uneven skin tones. Although there is no need to wipe off, LaFrance Powder is expected to have a brightening effect, which helps achieve translucent skin.

# Basic physical property

#### Appearance · Particle size

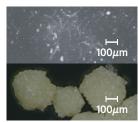
LaFrance Powder was dispersed in water. The supernatant liquid was then removed. Insoluble components obtained were observed under a microscope.

#### Product appearance



This powder contains beauty ingredients derived from fruit. They are either soluble or insoluble fruit fibers.

#### Insoluble fibers

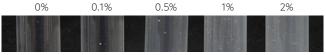


Fiber size Crystals:  $10 - 20\mu m$ Fibers:  $30 - 200\mu m$ Stone cell:  $250 - 500\mu m$ 

Based on in-house data

#### Appearance at formulating

LaFrance Powder was mixed into gel.



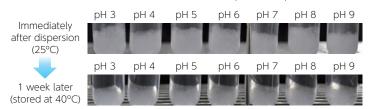
Based on in-house data

The composition of gel with 0.1% LaFrance Powder (pH: 6-7)

,	·
Raw material	%
LaFrance Powder	0.10
Carbomer	0.20
Xanthan gum	0.10
Glycerin	10.00
Pentylene glycol	3.00
1,2-hexanediol	2.00
Methylparaben	0.02
Potassium hydroxide	0.80
Water	83.78
Total	100.00

#### Effects on pH, temperature, and color

LaFrance Powder was dispersed in water to make a 2% solution. pH was then adjusted accordingly. Color differences were observed immediately after dispersion and after storing for a week at 40°C.



рН

The color remained almost the same regardless of pH.

Temperature

The color remained almost the same even if the solution was stored at 40°C for a week.

Based on in-house data

#### Purposes of fruit fibers

Product name	Anti- inflammatory	Improvement of rough skin	Brightens up skin tones	Antioxidant	Moisturizing	Collagen production	Prevention of the loss of firmness and sagging	Turnover	Deodorant effect
Cherry Powder	0	0	0	0	0	0	0	0	_
LaFrance Powder	_	_	0	0	0	0	0	0	_
Shonai Kaki Powder	_	_	0	0	0	0	0	0	0

Recommended formulation ratio: 0.1 - 1%

Safety evaluation: Human repeat insult patch test (HRIPT): Negative

Product number	Product name	中文名称	INCI name	Other ingredients	Package	Sample
LFP-000	LaFrance Powder Koken	_	PYRUS COMMUNIS (PEAR) FRUIT	Cyclodextrin, Sucrose, Zea mays(CORN) starch, Elaeis guineensis(PALM) oil	100g	10g

The Country of origin: Japan, The Place of origin: Yamagata Prefecture

\*The content in this document is prepared based on documents and experimental data available at the time of preparation. However the content does not comprise a guarantee. \*Please note in advance that the content description in the document is subject to change. All intellectual property belongs to KOKEN CO., LTD., such as copyrights and design rights for the given data and related documents. All rights reserved. For safe use of the materials, refer to the MSDS of each of our products prior to use. For written and verbal expressions about products for general consumers, follow the related laws and regulations in each country.

Contact

#### KOKEN CO., LTD.

1-4-14 Koraku, Bunkyo-ku, Tokyo 112-0004, Japan TEL +81-3-3868-0560 FAX +81-3-3816-3570

https://koken-cosme.com/en/

