

Use of a Cosmetic Ingredient Derived from Plant Material in the Development of the Oil-Soluble Resin “Dextrin Isostearate”

- Mascara that Rapidly Locks Curls of Eyelashes -

KOSÉ Corporation (Headquarters: Chuo-ku, Tokyo, Japan; President: Kazutoshi Kobayashi) and Chiba Flour Milling Corporation (Chiba City, Chiba Prefecture; President: Katsumi Numayama) have jointly developed the oil-soluble resin “dextrin isostearate” using a plant-derived material. The main raw material of “dextrin isostearate” is “dextrin,” a plant-derived ingredient from tapioca. “Dextrin isostearate” is a new type of resin which has both superior adhesive properties and quickly forms a film. This ingredient is used in the new KOSÉ product “Fasio Curl Lock Mascara,” whose launch is planned for January 16, 2011.

Resin in cosmetics increases adhesion to the skin, and it creates a film and maintains shape. It is an important ingredient which creates a water-resistant protective film. Many traditional natural resins have impurities that give color and odor. Although synthetic silicone resins can form a film, their adhesive properties tend to be poor. Thus, there are only a few resins which have well balanced characteristics.



KOSÉ began to develop a resin with a good balance of 3 functions: “adhesion,” “formation of film,” and “protection.” A focus was placed on the plant polysaccharide “dextrin.” Saccharides (sugars) adhere well to keratin which is a protein in skin and hair, including the eyelashes. They are also highly moisturizing and safe. The polysaccharide “dextrin” consists of long chains of sugar molecules and has the ability to form a film.

“Dextrin” is hydrophilic (having affinity for water), so it can be washed off with perspiration and water. Thus, KOSÉ investigated ways to change “dextrin” so that it becomes oil soluble. After various fatty acids were examined as groups to modify the dextrin molecule, KOSÉ successfully developed a superior new resin by partially modifying dextrin with isostearic acid, a long branched fatty acid. The resulting resin has the aforementioned three functions. This new oil-soluble resin “dextrin isostearate” has a better balance of properties than conventional resins (Table 1).

	New Ingredient	Conventional resin: Rosin resin (natural resin)	Conventional resin: Silicone resin (synthetic resin)
	Dextrin isostearate	Pentaerythritol hydrogenated rosin ate	Trimethylsiloxysilicate
Adsorption onto keratin	○	×	×
Pencil hardness JIS K5600-5-4	> 10B (elastic)	HB	> 10B (brittle and peels off)
Formation of film (presence/absence)	○	○	○
Water resistance	○	○	○

Table 1.
Results of Evaluation of Properties

For the pencil hardness, 40% concentration of isoparaffin solution was applied at a thickness of 400 μm on a glass plate. The dried resin film was evaluated.

The characteristic property of the new ingredient “dextrin isostearate” is fast formation of film. The speed of film formation was examined as following procedures. The resin sample solutions were prepared by dissolving each resin (new resin and conventional rosin resin (natural resin)) in volatile oil. Each sample was applied to a glass plate and the time required to form a film was measured. This revealed that the new resin “dextrin isostearate” began to form a film considerably faster than the conventional resin (Figure 1).

KOSÉ utilized these characteristics of the “dextrin isostearate”: fast formation of film and adsorption onto keratin, and used this resin first in mascara.

For a conventional mascara, a long time is required to form a film after it is applied. Even if the eyelashes are curled upward with an eyelash curler, they will begin to droop down over time with the weight of the mascara liquid. Mascara with “dextrin isostearate” adhered strongly to the eyelashes and quickly formed a flexible film. Therefore, it created more beautifully finished eyelashes with upward curls compared to before application (Figure 2). The results of the actual-use test showed that the upward curls were maintained over time.

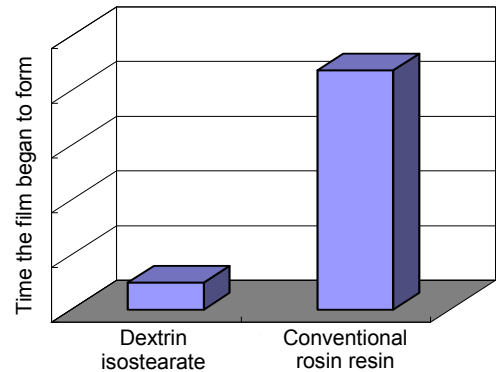


Figure 1. Time until the film began to form

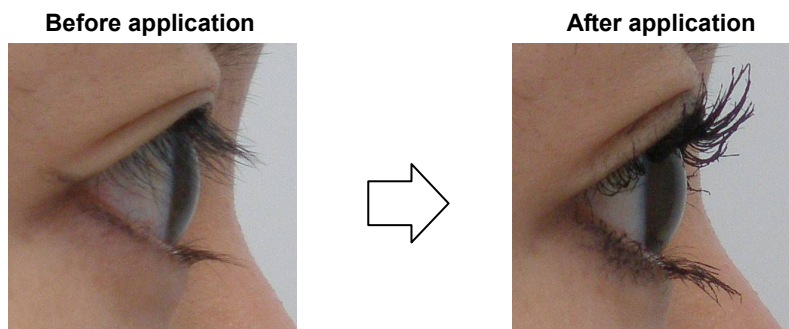


Figure 2. Effects of mascara formulated with dextrin isostearate

The “Fasio Curl Lock Mascara” with “dextrin isostearate” is planned for launch on January 16, 2011. “Dextrin isostearate” is a “curl lock ingredient” which gives long-lasting curls.

New Fasio Products on Sale Beginning January 16, 2011

3 items and 9 product varieties: 1,200 -1,300 yen (1,260 -1,365 yen including tax)

■ Curl Lock Mascara (for lengthening)

Available in 2 colors: 1,200 yen each (1,260 yen including tax)

- Curl Lock Mascara instantaneously locks curls of eyelashes using the new ingredient “curl lock ingredient (isostearate dextrin).” This ingredient gives the mascara superior adhesion on the eyelashes and a fast forming coat. The film has superior flexibility than those of conventional resins, giving softness to the eyelashes.
- The mascara liquid and fibers can be applied uniformly using a curved lift brush, which allows beautifully finished long eyelashes.
- Waterproof type that is strong against perspiration, water, and tears
- Available in 2 colors: black and brown



■ Curl Lock Mascara (for volumizing)

Available in 2 colors: 1,200 yen each (1,260 yen including tax)

- Curl Lock Mascara instantaneously locks curls of eyelashes using the new ingredient “curl lock ingredient (isostearate dextrin).” This ingredient gives the mascara superior adhesion on the eyelashes and a fast forming coat. The film has superior flexibility compared to those of conventional resins, giving softness to the eyelashes.
- The mascara liquid can be applied generously using a curved lift comb, which allows a lush finish to the eyelashes.
- Waterproof type that is strong against perspiration, water, and tears.
- Available in 2 colors: black and brown.



■ Gradation Light Eyes Eyeshadow

5 Product Varieties: 1,300 yen each (1,365 yen including tax)

- This eyeshadow blends with the skin and gives a natural luster because of the new formulation of “Foggy Nuance Powder.” It produces great colors because of its high transparency.
- Available in 5 product varieties: gold, brown, pink, green, and blue shades.



About Fasio

Fasio was designed with the concept of “continuing beauty” and launched in February 2000. It is a complete line of highly functional and fashionable cosmetics. It mainly targets active young women in their late teens and early twenties with a strong interest in fashion and cosmetics. The Fasio line provides trend-conscious colors and finishes, and it consists of a variety of products including point makeup, base makeup, and sun care products. This line fits in with a young woman’s active and stylish lifestyle

KOSÉ has highlighted the high functionality and high fashionability of Fasio and officially partnered with the Japan Skating Federation. KOSÉ has also partnered with the synchronized swimming team representing Japan.