Pellicer_General

Pellicer is…

-Pellicer is a gemini amphiphilic compound which has two hydrophilic tails and 3 hydrophilic groups, deriving from natural fatty acids and amino acids.

-Pellicer L-30's source materials are all plant derived. Any source materials derive from petroleum or animals are not contained. (*Pellicer LB-10 contains Butylene Glycol whose source material is petroleum derived.)

-Repairs damaged skin by permeating into stratum corneum and improves barrier function of skin through the similar function with Ceramide.

-Penetrates into hair interior portion and improves strength, thickness, water content of damaged hair and gives resilience and smoothness.

-Expresses emulsification and dispersion function at very low concentration. Compared to nonionic surfactants, excels in texture and decreases emulsifying cost.

-Gels various kind of oil by the method of D-phase emulsification. Enables it to formulate make up remover or massage oil which are tender to skin.

Functions and effects

-Skin care function

-Repairs damaged skin by permeating into stratum corneum and improves barrier function of skin through the similar function with Ceramide.

- Improves skin's fineness and elasticity.

- Brings excellent texture like moisture feeling and penetration feeling.

-Hair care function

-Permeates into hair interior and repairs damage.

-Brings excellent texture like resilient and smooth feeling.

-Can expect for scalp care effect by skin damage repair function.

-Emulsification and Dispersion function

-Emulsifies 20% oil with 0.03% (solid) of Pellicer.

-Makes emulsion not tacky compared to nonionic emulsifiers.

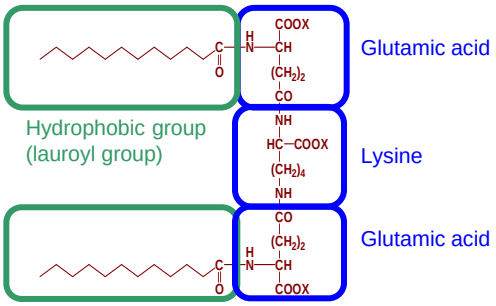
-Decreases emulsifying cost by Pellicer's very low concentration needed.

–Oil gelation function

-Gels various oils by the method of D-phase emulsification.

-Smooth and fine-texture gel can be formulated.

-Pellicer L-30 is recommended for oil-gelation.



Chemical structure of Pellicer

Function and examples of application

Function	Examples of application	LB-10	L-30
Skin care	－Base cosmetics like toner, lotion, emulsion, and cream －Face wash, make up remover, body shampoo	1.0% （Solid 0.1%）	0.3% （Solid 0.1%）
Hair care	－In-bath products like shampoo, conditioner, etc. －Out-bath products like treatment, styling, etc. －Pre/post curling / coloring agents	1.0% （Solid 0.1%）	0.3% （Solid 0.1%）
Emulsification and Dispersion	－Skin care emulsions for cream, etc. －Hair care emulsions －Sunscreens, liquid foundations…	0.3～1.0% （Solid 0.03～0.1%）	0.3～1.0% （Solid 0.03～0.1%）
Oil gelation	－Make up remover －Massaging oil －Hair treatment oil	－*1	1.0% （Solid 0.3%）

*1: Pellicer L-30 is recommended for oil gelation.

Grade Lineup

Trade name	Pellicer LB-10	Pellicer L-30
INCI Name* (Concentration %)	Sodium Dilauramidoglutamide Lysine (10%) Butylene Glycol (10%) Water (80%)	Sodium Dilauramidoglutamide Lysine (29%) Water (71%)
Packing	18kg/Can	1kg/Can, 18kg/Can

*INCI NAME of Pellicer LB-10 is under application as of July 15, 2010.

Manufactured by

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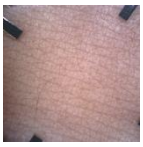
Skin care function

Skin fineness improvement in damaged skin can be confirmed by Pellicer application.



Healthy skin

Damaged skin

Pellicer treatment Day 3

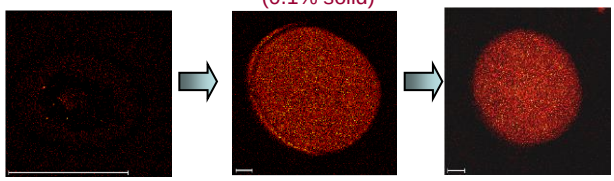
Water treatment Day3

After having the skin roughened by Potassium Cocoate treatment, apply Pellicer solution (0.1% solid) twice a day and observe the skin surface with microscope.

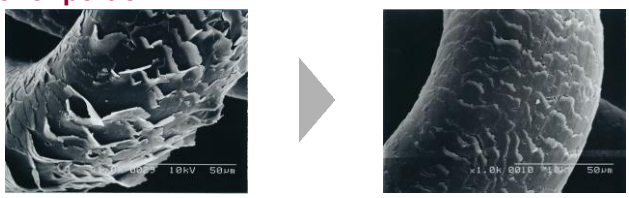
Hair care function

Pellicer can penetrate into deep portion of hair fiber even with a short treatment time; 1min., and remains in interior portion of hair fiber after water rinsing.

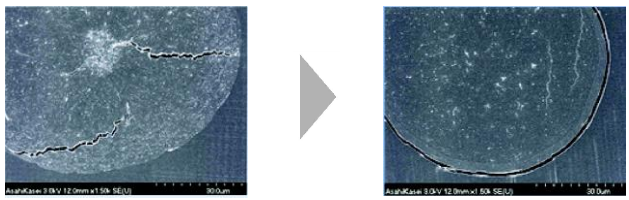
Damaged hair | Pellicer treatment (0.1% solid) | After water rinsing for 3 times



Pellicer repairs damage on hair surface and in hair interior portion.



Damaged hair | Pellicer treatment (0.1% solid)



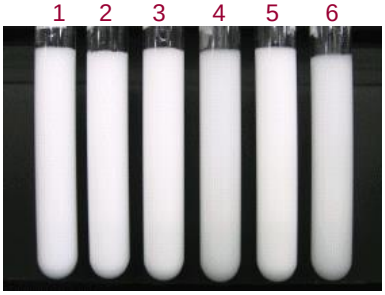
Emulsification and Dispersion function

Emulsifies 20% oil with 0.03% (solid) of Pellicer.

Makes emulsion non-tacky compared to nonionic surfactants.

After 1 month at 50C

1 2 3 4 5 6



1: Ethylhexyl palmitate
2: Olea Europaea (Olive) Fruit Oil
3: Mineral Oil (5.8~8.9 mm^2/S)
4: Cyclopentasiloxane
5: Caprylic/Capric Triglyceride
6: Dimethicone (6 mm^2/S)

Composition

Ingredients	Wt%
Pellicer L-30 (Solid)	0.1 (0.03)
Oil	20
Carbomer (Carboporl 981)	0.2
30w/v%NaOH agueous solution	0.28
Water	79.42

Procedure

1. Dissolve carbomer in water.
2. Adjust pH 7 of carbomer solution using NaOH aqueous solution.
3. Add Pellicer and Oil.
4. Emulsify using homo mixer (6000rpm) for 5min at r.t.

Oil gelation function

Pellicer can gel various oils by the method of D-phase emulsificatin.

Make up remover gel formula (MY-137)

	Ingredients	%
Aqueous Phase	**Pellicer L-30**	1
	Glycerin	20
	Sorbitol	5
Oil Phase	Mineral oil	47
	Isononyl isononanoate	15
	Dimethicone	5
	Cyclopentasiloxane	5
	PEG-20 Glyceryl triisostearate	2

Procedure

1.Stirring for 2 minutes the aqueous phase at room temperature(500rpm)
2. With stirring the oil phase at about 7g / min into the aqueous phase.(500rpm)
3.After the oil phase is added, stirred for 10 minutes(500rpm)
4.Degassed 3 times