

【DESCRIPTION】

【Invention Title】

MASK PACK AND MANUFACTURING METHOD THEREFOR

【Technical Field】

The present application claims the benefit of Korean Patent Application No. 10-2017-0041728 on March 31, 2017 with the Korean Intellectual Property Office, the disclosure of which is herein incorporated by reference in its entirety.

The present invention relates to a mask pack having an excellent feeling of use.

【Background Art】

The mask pack is a skin care product that is applied to the skin and removed after being left for a certain time, and the mask pack is classified into various types according to the formulation and the method of use. Among them, the mask sheet is a product in which a cosmetic solution containing a moisturizer, a whitening agent, an anti-wrinkle agent, and other functional cosmetic ingredients is impregnated into the substrate on the sheet, and the mask sheet is used in such a way to attach to the user's skin for a certain time and then peel off it. The mask sheet has excellent portability and is easy to use, and thus become one of the most common forms of mask packs. The mask sheet is also continuously being researched and developed to meet the various needs of consumers.

Most of the mask sheets currently in circulation have a form in which a cosmetic composition is impregnated into a substrate such as a nonwoven fabric, and are manufactured in

such a way by folding the substrate into a packaging bag and then injecting and sealing the contents. Therefore, as the content to be injected, toilet water or cosmetic liquid having low viscosity and excellent flowability is used to be easily impregnated into the substrate. On the other hand, high-viscosity dosage forms, such as creams and gels, have less fluidity and thus are difficult to be impregnated into the substrate in the same manner as described above, thereby having limitations in their use as contents.

In the conventional mask sheet manufactured as described above, a considerable amount of contents remains in the packaging bag as well as the substrate. In addition, both sides of the mask sheet are not particularly distinguished, and both are wetted by the contents. Such mask sheets have problems that a large amount of the injected contents are evaporated or remain in the packaging bag rather than supplied to the skin, and thus a considerable amount is lost, and that the feeling of use is poor, for example, contents leave residues in the hand during handling and contents having low viscosity flow down even after the mask sheet is attached to the skin.

In order to solve the above problems, Korean Utility Model No. 20-0464720 proposed a mask pack that can be used simultaneously with unfolding the packaging film by attaching detachably the face sheet impregnated with toilet water to one side of the packaging film and thus forming it integrally. Such a mask pack can be used by holding the outer periphery of the unwrapped packaging film by hands, thereby preventing the contents from leaving residues in the hands and also preventing the evaporation of toilet water from the packaging film. However, the mask pack have problems that due to the packaging film, the flexibility of the face sheet is reduced, resulting in poor skin adhesion, and that the permeability of the sheet is reduced, thereby

indicating a stuffy feeling of use when attached to the skin. In addition, there is a disadvantage that in that way, the amount of impregnation of the contents is limited.

Therefore, there is a need to develop a new mask sheet that does not leave a residue on the hand thereby being hygienic and easy to handle, has good adhesion to skin and a good feeling of use, and makes it possible to use a high-viscosity dosage form as content.

[Prior Art Document]

[Patent Document]

Korean Utility Model No. 20-0464720, Mask Pack for Spreadable Packing of All in One Type

【Disclosure】

【Technical Problem】

The present inventors have completed the present invention as a result of studying a mask pack that is easy to use, because the contents do not leave a residue in the hand during handling, and is capable of supporting the contents of a high-viscosity dosage form.

Accordingly, an aspect of the present invention provides a mask pack that exhibits an improved feeling of use.

Another aspect of the present invention provides a method of manufacturing the mask pack above.

【Technical Solution】

According to an aspect of the present invention, there is provided a mask pack comprising a mask sheet having a cosmetic composition impregnated in only its one side, and a release film, wherein the mask sheet comprises a base layer impregnated with the cosmetic composition; and a blocking

layer bonded to one side of the base layer to block outflow of the cosmetic composition impregnated in the base layer, and the release film is bonded to the other side of the base layer of the mask sheet.

The base layer may comprise a nonwoven fabric, woven fabric, paper, foam, or sponge.

The base layer may comprise at least one selected from the group consisting of viscose rayon, modal, lyocell, tencel, cupra, polyester, polypropylene, polyethylene terephthalate, nylon, cotton, hemp, pulp, and cellulose.

The base layer may have a moisture content of from 100 to 5000%.

The base layer may have a thickness of from 20 μm to 2 mm.

The blocking layer may comprise nanofibers.

The blocking layer may comprise at least one water repellent polymer selected from the group consisting of water repellent polyolefin, water repellent polyurethane, water repellent polyvinylidene fluoride, and teflon-based resin.

The water repellent polymer may be included in an amount of from 0.01 to 5% by weight, based on a total of 100% by weight of the blocking layer.

The blocking layer may have a mass per unit area of from 1 to 50 gsm.

The bonding of the base layer and the blocking layer may be made by at least one adhesive selected from the group consisting of an acrylic adhesive, a rubber-based adhesive, a polyurethane adhesive, a polyester adhesive, a silicone adhesive, and a hot-melt adhesive.

The mask sheet may further comprise a blocking complement layer formed on the blocking layer.

The blocking complement layer may be a polyurethane

coating layer.

The blocking complement layer may have a mass per unit area of from 0.1 to 20 gsm.

The cosmetic composition impregnated in the base layer may have a viscosity of from 5,000 to 200,000 cps.

According to another aspect of the present invention, there is provided a method for manufacturing a mask pack comprising the steps of:

S1) preparing a mask sheet including a base layer and a blocking layer bonded to one side thereof;

S2) coating a cosmetic composition on a release film;
and

S3) impregnating the cosmetic composition by placing the mask sheet on the release film prepared from the step S2.

The mask sheet of step S1 may further comprise a blocking complement layer formed on the blocking layer.

【Advantageous Effects】

The mask pack of the present invention is convenient to use, since the contents do not leave residues in the hands during handling, is hygienic, and is excellent in adhesion to skin and feeling of use. In addition, since the mask pack is impregnated with a high-viscosity dosage form such as a cream, it can be used as a high-moisturizing and high-nourishing pack.

【Description of Drawings】

FIG. 1 is a cross-sectional view of a mask pack according to an embodiment of the present invention.

FIG. 2 is a cross-sectional view of a mask pack according to another embodiment of the present invention.

[Description of symbol]

10: Release film

- 20: Mask sheet
- 21: Base layer
- 22: Blocking layer
- 23: Blocking complement layer

【Best Mode】

Hereinafter, preferred embodiments of the present invention will be described in detail with reference to the accompanying drawings. These drawings may be implemented in various different forms as an embodiment for explaining the present invention, and it is not limited to this specification. In this case, in order to clearly describe the present invention, parts not related to the description are omitted, and similar reference numerals are used for similar parts throughout the specification. In addition, the size and relative size of the components shown in the drawings are not related to the actual scale, may be reduced or exaggerated for clarity of description.

Mask pack

The present invention provides a mask pack comprising a mask sheet having a cosmetic composition impregnated in only its one side, and a release film, wherein the mask sheet comprises a base layer impregnated with the cosmetic composition; and a blocking layer bonded to one side of the base layer to block outflow of the cosmetic composition impregnated in the base layer, and the release film is bonded to the other side of the base layer of the mask sheet.

In the case of the mask pack of the present invention, since the cosmetic composition is impregnated in only one side of the mask sheet, and the mask sheet is protected with the release film, the contents do not leave residues in the hands during using, thereby being easy to use. In addition,

although the mask sheet comprises the blocking layer, the mask sheet has excellent adhesion to the skin and exhibits a pleasant feeling of use. In addition, the mask pack of the present invention is impregnated with a high-viscosity dosage form such as a cream, unlike the conventional mask pack, thereby giving a high-moisturizing and high-nourishing effect.

FIG. 1 is a cross-sectional view of a mask pack according to an embodiment of the present invention. As shown in FIG. 1, the mask pack of the present invention includes a release film 10 and a mask sheet 20, and the mask sheet 20 includes a base layer 21 and a blocking layer 22. At this time, the cosmetic composition is impregnated into the base layer 21 and does not leave residues outside the blocking layer 22.

In the present invention, the release film 10 is for protecting the skin contact surface of the mask sheet 20 until it is attached to the skin and preventing contamination and evaporation of the cosmetic composition supported on the base layer 21, wherein the release film 10 is peeled off from the mask sheet when the user uses the mask pack, and the base layer 21 of the mask sheet 20 to which the release film 10 is in contact is a skin contact surface.

The material of the release film 10 is not particularly limited and may be used without limitation as long as it is any material known in the art to be used as a release film. In particular, PET film, embossed PET film, PP film and the like may be preferable.

In the present invention, the mask sheet 20 includes the base layer 21 impregnated with the cosmetic composition and used as a surface to be attached to the skin.

The base layer 21 has a plurality of pores so that the cosmetic composition can be impregnated, and the shape and

material thereof are not particularly limited as long as the base layer 21 has excellent liquid retention property.

For example, the base layer 21 may be a nonwoven fabric, woven fabric, paper, foam, or sponge. And the material thereof may comprise, but is not limited to, at least one selected from the group consisting of viscose rayon, modal, lyocell, tencel, cupra, polyester, polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET), polyvinyl alcohol (PVA), polyvinyl chloride (PVC), polyacrylonitrile (PAN), polyamide, polyurethane (PU), polylactic acid (PLA), nylon, cotton, hemp, pulp, and cellulose. According to one embodiment of the invention, the base layer may comprise a viscose rayon nonwoven fabric, tencel nonwoven fabric, cupra nonwoven fabric, or cotton nonwoven fabric.

A mass per unit area of the base layer 21 is not particularly limited, but may be from 10 to 150 gsm (g/m^2). In addition, the base layer 21 may have a moisture content of from 100 to 5000% of the weight of the base layer itself, but is not limited thereto.

A thickness of the base layer 21 is not particularly limited in the present invention and may be appropriately adjusted as necessary, but may preferably be in the range of from 20 μm to 2 mm. When the thickness of the base layer is less than 20 μm , there is a problem in handleability, for example a problem that the spreadability of the mask sheet is poor and the mask sheet is easily torn off. When the thickness of the base layer exceeds 2 mm, the mask sheet is too thick, so there is a problem that the adhesion strength is lowered when attached to the skin. Therefore, the thickness of the base layer is appropriately adjusted within the above range.

The mask sheet 20 of the present invention includes a

blocking layer 22 bonded to one surface of the base layer 21 described above. The blocking layer 22 serves to block the cosmetic composition impregnated in the base layer 21 from being outflowed or evaporated out of the base layer 21 and to prevent contents from leaving residues on the outer surface of the mask sheet 20. At this time, the blocking layer 22 may be preferably formed in a thin film so as not to reduce the inherent flexibility of the base layer 21.

In the present invention, the blocking layer 22 may comprise nanofibers. Here, the nanofibers refer to fibers having a diameter of from 1 to 500 nm of a single fiber by the number average. Such nanofibers exhibit excellent adhesion when bonded to the base layer 21, and can be manufactured as a thin film, which is suitable for use as a material of the blocking layer 22.

The nanofibers may be manufactured by an electrospinning method. The electrospinning method is a method in which a polymer solution or a polymer in a molten state is spun into a fiber form by applying a high voltage (for example, 10 to 60 kV) and discharging it from a nozzle. Since the electrospinning method is based on polymer solution or polymer in molten state, almost all kinds of fiber materials can be used.

The material of the nanofibers is not particularly limited as long as the material is capable of electrospinning, and synthetic polymer, natural polymer or a combination thereof may be used. Specifically, the material of the blocking layer may be at least one selected from the group consisting of polyacrylonitrile (PAN), polyethylene oxide (PEO), polyethylene terephthalate (PET), polystyrene (PS), polyvinylidene fluoride (PVDF), polyurethane (PU), polyvinyl propylene (PVP), polyvinyl alcohol (PVA), nylon, polyethersulfone (PES), polyetherimide (PEI), poly (styrene-butadiene-styrene) (SBS), and carboxymethylcellulose (CMC),

and may preferably be at least one selected from the group consisting of polyacrylonitrile, polyvinylidene fluoride, and polyurethane.

In the present invention, the blocking layer 22 may be preferably provided with water repellent and oil repellent properties so as to prevent the cosmetic composition from being crept and exert a blocking effect. That is, the blocking layer may be prepared with the water and oil repellent components contained, or may be one in which water and oil repellent components are coated on a substrate having little or no water and oil repellent components.

According to an embodiment of the present invention, the blocking layer 22 may be a sheet of nanofibers manufactured with the water repellent polymer contained. At this time, non-limiting examples of the water repellent polymer may be at least one selected from the group consisting of water repellent polyolefin, water repellent polyurethane (for example, fluorine-containing polyurethane), water repellent polyvinylidene fluoride and teflon-based resin. At this time, the water repellent polymer may be included in an amount of from 0.01 to 5% by weight, or from 0.1 to 2% by weight, based on a total of 100% by weight of the blocking layer.

The blocking layer 22 of the present invention may be preferably implemented in a thin film form so that the blocking layer 22 can serve as a blocking film without degrading the flexibility of the base layer 21. Specifically, the blocking layer may be formed in a mass per unit area of from 1 to 50 gsm, more preferably 1 to 20 gsm. When the mass per unit area of the blocking layer is less than 1 gsm, it is difficult to prevent the permeation and evaporation of the cosmetic composition impregnated into the base layer. When the mass per unit area of the blocking layer exceeds 50 gsm, since the flexibility of the base layer is degraded,

when attached to the skin, the adhesion is reduced, and the breathability is deteriorated, which may indicate a stuffy feeling of use.

In the mask sheet 20 of the present invention, the base layer 21 and the blocking layer 22 may be bonded by adhesive, heat welding, ultrasonic wave, or stitching.

According to one embodiment of the present invention, the bonding of the base layer 21 and the blocking layer 22 may be made by at least one adhesive selected from the group consisting of an acrylic adhesive, a rubber-based adhesive, a polyurethane adhesive, a polyester adhesive, a silicone adhesive, and a hot-melt adhesive. The bonding layer between the base layer 21 and the blocking layer 22 may be formed by a general method such as a method for coating the adhesive above, and the bonding layer may have a function of a blocking complement layer that complements the water repellency and oil repellency of the blocking layer 22. At this time, in order to prevent the degradation of the air permeability of the mask sheet by the adhesive, the bonding may be by point fusion.

Preferably, a hot-melt adhesive may be used as the adhesive. The hot-melt adhesive is an adhesive that contains no water or solvent at all and is bonded in a state in which a nonvolatile, nonflammable, or thermoplastic resin which is solid at room temperature is melted by heat. The hot-melt adhesive is environmentally friendly because it does not contain solvents and has the advantage of less irritation to the skin.

The type of the hot-melt adhesive is not particularly limited, and adhesives commonly used in the art may be used without limitation. Specifically, the hot-melt adhesive may further comprise resins such as ethylene vinyl acetate copolymer (EVA), polyethylene (PE), polypropylene (PP), SIS, polyester, polyamide, polyurethane as a basic resin and

additionally comprise wax (paraffin wax, polyethylene wax, etc.), tackifying resin (rosin-based resin, terpene resin, coumarone indene resin, petroleum resin, etc.), plasticizer (paraffin, aromatic oil, etc.), fillers (calcium carbonate, cray, etc.), antioxidants (phenols, aromatic amines, etc.).

The amount of the adhesive used in the present invention is not particularly limited and may be appropriately adjusted as necessary, but may be, for example, in the range of from 0.1 to 10 gsm. When satisfying such a range, it is possible to ensure proper adhesion and to avoid the problem that the air permeability of the mask sheet is degraded due to excessive application of the adhesive.

Meanwhile, the mask sheet 20 of the present invention may further comprise a blocking complement layer 23 formed on the blocking layer 22, as shown in FIG. 2. The blocking complement layer 23 is to supplement the water repellency and oil repellency of the blocking layer 22, and the blocking complement layer 23 may be preferably formed in a thin film, like the blocking layer 22, so that the flexibility of the sheet does not decrease, and preferably does not impair the air permeability of the sheet. For example, the blocking complement layer 23 may have a mass per unit area of from 0.1 to 20 gsm.

The blocking complement layer 23 may be a waterproof film or a coating layer coated with at least one resin selected from the group consisting of a fluorine-based resin, a silicone-based resin, an urethane-based resin, and a teflon-based resin. Preferably, the blocking complement layer 23 may be a urethane coating layer.

In addition, a pattern may be transferred or printed on the outer surface of the blocking complement layer 23, that is, the surface not bonded to the blocking layer 22 to give an aesthetic feeling. At this time, the transferring or printing method is not particularly limited, and methods

known in the art may be used.

The formulation of the cosmetic composition impregnated in the mask sheet 20 of the present invention is not particularly limited as long as it can be impregnated into the base layer 21 as described above, but it is preferable to use high-viscosity dosage forms having a viscosity of from 5,000 to 200,000 cps.

Since the cosmetic composition of the high-viscosity dosage form as described above not only has excellent water containing capacity compared to formulations with high flowability, such as latex and toilet water, but also can increase the content of oil and active ingredients, there is an advantage to supplying a high level of nutrients to the skin and maximize the high moisturizing effect and regeneration effect. In addition, when the high-viscosity dosage form is applied, the contents do not flow down from the mask sheet during distribution or use of the mask pack, so the convenience of use is also excellent.

The viscosity of the cosmetic composition may be measured by a viscosity measuring device. Specifically, the viscosity of the cosmetic composition can be measured by placing 100 g of the sample in a container and storing it in a thermostatic bath at 30 °C for at least 12 hours, and then loading the sample on a BROOKFIELD Viscometer (BROOKFIELD RVDV-II + pro viscometer) set to spindle number 64 and spindle speed 12 rpm, and measuring the viscosity value by operating the instrument for 2 minutes.

The component of the cosmetic composition is not particularly limited in the present invention, but may be a moisturizing component such as fatty alcohol, wax, oil, glycerin; a skin active ingredient having an effect such as wrinkle improvement effect, skin whitening effect, UV protection effect, anti-aging effect, moisture supplying

effect, elasticity increasing effect; natural extracts.

For example, the skin active ingredient may be at least one selected from the group consisting of retinol, retinyl palmitate, retinyl acetate, retinoic acid, coenzyme Q10, elastin, collagen, hyaluronic acid, ceramide, collagen, caffeine, chitosan, ascorbic acid, ascorbyl glucoside, alpha bisabolol, tocopherol, tocopherol acetate, albutin, niacinamide, adenosine, retinol acetate, vitamins A, D, E, and natural extracts.

The natural extracts may be at least one selected from the group consisting of aloe, green tea, ginseng, red ginseng, pearl, pyroligneous liquor, pine needles, ginkgo leaf, propolis, mulberry leaves, silkworm, snail mucus, kakadu plum, camucamu, assai palm, squalane, caviar, broccoli, blueberry, Witch Hazel, acerola, chlorella, mangosteen, guava, cornus, carrot, caffeine, hamamelis, spirulina, salmon roe, sea trumpet, giant kelp, kombu, portulaca, sea lettuce, agar-agar, mulberry root, raspberry, wild berry, fusiformis, gulfweed, edelweiss, chamomile, lavender, peppermint, eucalyptus, lemon balm, oregano, tea tree, golden, houttuynia cordata, sea buckthorn, and citron.

In addition, the cosmetic composition may further comprise preservatives, thickeners, fragrances, surfactants and the like widely used in the art as an additive.

As described above, the mask pack of the present invention comprises a mask sheet 20 having a cosmetic composition impregnated in only its one side, and a release film 10 bonded thereto, so that it is easy to use because the contents do not leave residues on the hands while handling the mask pack. In addition, the mask pack of the present invention uses a high viscosity cream-like formulation as the cosmetic composition to be impregnated, thereby exhibiting a high-moisturizing and high-nourishing effects as compared to a mask pack impregnated with a

conventional low viscosity formulation.

Manufacturing method of mask pack

A manufacturing method of the mask pack of the present invention is not particularly limited, and for example, the mask pack of the present invention can be manufactured by the steps comprising:

S1) preparing a mask sheet including a base layer and a blocking layer bonded to one side thereof;

S2) coating a cosmetic composition on a release film;
and

S3) impregnating the cosmetic composition by placing the mask sheet on the release film coated with the cosmetic composition.

When the above method is adopted, it is easy to impregnate the mask sheet with a high-viscosity dosage form such as cream. In addition, since the cosmetic composition does not leave residues in portions other than the base layer serving as a skin contact surface, there is an advantage that a mask pack which is easily handled can be manufactured.

Hereinafter, the manufacturing method according to an embodiment of the present invention will be described in detail for each step.

In step S1, a mask sheet comprising a base layer capable of impregnating the cosmetic composition and a blocking layer bonded to one surface thereof is prepared.

The material and form of the base layer are as described above, and the base layer may be a commercially available material or may be manufactured and used directly.

The blocking layer may comprise nanofibers as described above. In this case, the nanofiber blocking layer may be manufactured by an electrospinning method.

In the electrospinning process, a polymer solution or a

molten polymer may be used as described above. The polymer solution is composed of a raw material polymer of nanofibers, a water repellent polymer, and a solvent. In this case, the solvent is not particularly limited as long as it can dissolve the raw material polymer and the water repellent polymer. In one embodiment of the present invention, a polymer solution was used as the electrospinning solution, which was prepared by using methyl ethyl ketone as a solvent, and dissolving 14.5% by weight of polyurethane, and a trace amount of polyurethane containing fluorine as a water repellent.

The condition for the electrospinning process for forming the blocking layer may be by a generally known method, but is not particularly limited. For example, the electrospinning may be performed at a temperature of from 20 to 25 °C, a humidity of from 20 to 40%, and a voltage of from 40,000 to 55,000 V.

In the present invention, the electrospinning method is not particularly limited, and any one of general electrospinning, air-electrospinning (AES), centrifugal electrospinning, and flash-electrospinning may be used.

The blocking layer may be formed by bonding a previously prepared nanofibers layer on a base layer, or by directly electrospinning a polymer solution on one surface of the base layer. At this time, in order to facilitate bonding of the blocking layer and the base layer, the above-described adhesive may be first applied on the base layer before bonding of the blocking layer, and the blocking layer may be formed thereon.

Meanwhile, the mask sheet of the step S1 may further comprise a blocking complement layer formed on the blocking layer. At this time, the water repellency and oil repellency of the blocking layer may be complemented by the coating

layer as described above.

At this time, a method of forming the coating layer on the blocking layer is not particularly limited, and for example, a method of laminating a waterproof film, a method of coating a water repellent on a blocking layer by a conventional coating method, or the like may be used.

In step S2, the cosmetic composition with high viscosity is evenly coated on the release film before impregnating in the base layer. At this time, the coating method is not particularly limited in the present invention, for example, a method such as comma coating, reverse coating, slot die coating, spray coating, doctor blade may be used.

In the step S2, the coating thickness of the cosmetic composition is not particularly limited, but may be preferably in the range of from 100 to 5,000 μm , more preferably in the range of from 200 to 1000 μm .

Next, in step S3, the cosmetic composition is impregnated by placing the mask sheet prepared in the step S1 on the cosmetic composition coated on the release film.

When using this method, the cosmetic composition with high viscosity and poor flowability can be sufficiently impregnated into the base layer. In addition, the cosmetic composition can be selectively impregnated with only the skin attachment surface, which is preferable.

At this time, in the step S2 and S3, when using the cosmetic composition immediately after manufacture having a temperature of from 30 to 80 $^{\circ}\text{C}$, there is an advantage that the impregnation of the cosmetic composition can be made more smoothly.

The mask pack of the present invention has a stacked structure in order of a release film, a base layer

impregnated with the cosmetic composition, and a blocking layer through the manufacturing method as described above. Therefore, the base layer does not touch the hand directly when handling the mask pack, thereby being convenient to use and hygienic. In addition, when the manufacturing method as in the present invention is used, since a formulation like a high viscosity cream may be supported in the mask pack, it is possible to manufacture high-nourishing and high-moisturizing packs.

Hereinafter, preferred examples are provided to help understanding of the present invention, but the following examples are only for exemplifying the present invention. It is apparent to those skilled in the art that various changes and modifications can be made within the scope and spirit of the present invention, and such changes and modifications are within the scope of the appended claims.

[EXAMPLES]

Preparation Example 1: Preparation of the cosmetic composition

As the cosmetic composition to be impregnated in the base layer of the mask sheet, a cream having the composition of Table 1 below was prepared.

【Table 1】

	Component	Content (% by weight)
1	stearic acid	2
2	glyceryl stearate	2
3	cetearyl alcohol	0.5
4	hydrogenated polydecene	8
5	pentaerythritol tetraisostearate	3
6	coco-caprylate/caprate	3
7	deionized water	To 100

8	glycerin	5
9	arginine	0.65

<Manufacturing method>

- 1) Warm components 1 ~ 6 up to 75 °C.
- 2) Put components 7 ~ 9 into the separate manufacturing container and warm up to 90 °C.
- 3) Mixing the step 1) while introducing into the manufacturing container of the step 2).
- 4) Cool rapidly up to 30 °C without stirring.

A viscosity of the prepared cream was measured by the following viscosity measuring instrument and measuring method, and as a result, the viscosity of the cream was 30,000 cps.

<Method of viscosity measurement>

- 1) Viscosity measuring instrument: BROOKFIELD RVDV-II + pro viscometer
- 2) Preparation of Viscosity Measurement Sample: Place 100 g of the sample to be measured in a container and store it in a 30 °C thermostatic bath for at least 12 hours.
- 3) Condition of measuring instrument: Spindle Number 64, Spindle Speed 12 rpm, Measuring time 2 minutes.
- 4) Loaded the sample of the step 2) into the device of the step 1) set to the condition of the step 3), and operated the instrument for 2 minutes to measure the viscosity.

Example 1: Preparation of mask pack

1 gsm of hot-melt polyurethane adhesive (Henkel, Purmelt®) was coated on a rayon-PET spunlace (60 gsm)

nonwoven fabric containing viscose rayon and PET (weight ratio 8:2). Thereafter, a mask sheet was prepared by forming a 6 gsm nanofiber blocking layer by an electrospinning process. At this time, the electrospinning solution contained 75% by weight of methyl ethyl ketone as a solvent. A polymer solution prepared by dissolving 14.5% by weight of polyurethane and 3% by weight of polyurethane containing fluorine as a water repellent in the solution above was used. The conditions of electrospinning were set at a temperature of 20 to 25 °C, a humidity of 20 to 40%, and a voltage of 40,000 to 55,000 V.

Separately, the cosmetic composition prepared in Preparation Example 1 was applied onto a release film (PET film having a thickness of 20 μm), and the cosmetic composition was evenly coated to a thickness of 700 μm using a comma coater (Ikeda, Japan).

The prepared mask sheet was placed on the cosmetic composition coated on the release film, and impregnated the cosmetic composition on a nonwoven fabric by pressing at a predetermined pressure to manufacture a mask pack.

The mask pack prepared as described above was easy to handle and hygienic because the cosmetic composition impregnated in the base layer does not leave residues on the outside due to the release film and a blocking layer. In addition, high-viscosity cream was used as the cosmetic composition, showing high-moisturizing ability compared to conventional mask packs, and air permeability was ensured even when the blocking layer was comprised, so that there was no stuffy feeling of use when attaching to the skin, and adhesion to skin was also excellent.

【CLAIMS】

【Claim 1】

A mask pack comprising a mask sheet having a cosmetic composition impregnated on only its one side, and a release film, wherein the mask sheet comprises a base layer impregnated with the cosmetic composition; and a blocking layer bonded to one side of the base layer to block outflow of the cosmetic composition impregnated with the base layer,

wherein the base layer has a moisture content of from 100 to 5000%,

wherein the blocking layer comprises nanofibers having a diameter of from 1 to 500 nm of a single fiber, and

wherein the release film is bonded to the other side of the base layer of the mask sheet.

【Claim 2】

The mask pack according to claim 1, wherein the base layer comprises nonwoven fabric, woven fabric, paper, foam, or sponge.

【Claim 3】

The mask pack according to claim 1, wherein the material of the base layer comprises at least one selected from the group consisting of viscose rayon, modal, lyocell, tencel, cupra, polyester, polypropylene, polyethylene terephthalate, nylon, cotton, hemp, pulp, and cellulose.

【Claim 4】

The mask pack according to claim 1, wherein the base layer has a thickness of from 20 μm to 2 mm.

【Claim 5】

The mask pack according to claim 1, wherein the blocking layer comprises at least one water repellent

polymer selected from the group consisting of water repellent polyolefin, water repellent polyurethane, water repellent polyvinylidene fluoride, and teflon-based resin.

【Claim 6】

The mask pack according to claim 5, wherein the water repellent polymer is included in an amount of from 0.01 to 5% by weight, based on a total of 100% by weight of the blocking layer.

【Claim 7】

The mask pack according to claim 1, wherein the blocking layer has a mass per unit area of from 1 to 50 gsm.

【Claim 8】

The mask pack according to claim 1, wherein the bonding of the base layer and the blocking layer is made by at least one adhesive selected from the group consisting of an acrylic adhesive, a rubber-based adhesive, a polyurethane adhesive, a polyester adhesive, a silicone adhesive, and a hot-melt adhesive.

【Claim 9】

The mask pack according to claim 1, wherein the mask sheet further comprises a blocking complement layer formed on the blocking layer.

【Claim 10】

The mask pack according to claim 1, wherein the bonding layer between the base layer and the blocking layer in the mask sheet is a blocking complement layer.

【Claim 11】

The mask pack according to claim 9 or claim 10, wherein the blocking complement layer is a polyurethane coating layer.

【Claim 12】

The mask pack according to claim 9, wherein the blocking complement layer has a mass per unit area of from 0.1 to 20 gsm.

【Claim 13】

The mask pack according to claim 1, wherein the cosmetic composition impregnated in the base layer has a viscosity of from 5,000 to 200,000 cps.

【Claim 14】

A method for manufacturing a mask pack comprising the steps of:

S1) preparing a mask sheet including a base layer and a blocking layer bonded to one side thereof;

S2) coating a cosmetic composition on a release film;
and

S3) impregnating the cosmetic composition by placing the mask sheet on the release film prepared from the step S2,

wherein the blocking layer of the step S1) is manufactured by a method in which a polymer solution or a polymer in a molten state is spun into a fiber form by applying a high voltage and discharging it from a nozzle,

wherein the base layer has a moisture content of from 100 to 5000%, and

wherein the blocking layer comprises nanofibers having a diameter of from 1 to 500 nm of a single fiber.

【Claim 15】

The method for manufacturing the mask pack according to claim 14, wherein the mask sheet of the step S1 further comprises a blocking complement layer formed on the blocking layer.