



(11)

EP 4 095 068 A1

(12)

EUROPEAN PATENT APPLICATION
published in accordance with Art. 153(4) EPC

(43) Date of publication:

30.11.2022 Bulletin 2022/48

(51) International Patent Classification (IPC):

B65D 85/07 ^(2017.01)

(21) Application number: **21744810.9**

(52) Cooperative Patent Classification (CPC):

B65D 83/08; B65D 85/07

(22) Date of filing: **14.01.2021**

(86) International application number:

PCT/JP2021/001019

(87) International publication number:

WO 2021/149580 (29.07.2021 Gazette 2021/30)

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

Designated Extension States:

BA ME

Designated Validation States:

KH MA MD TN

(71) Applicant: **DAIO PAPER CORPORATION**

Shikokuchuo-shi

Ehime 799-0492 (JP)

(72) Inventor: **UNO, Ayako**

Fuji-shi, Shizuoka 419-0202 (JP)

(74) Representative: **Epping - Hermann - Fischer**

Patentanwalts-gesellschaft mbH

Schloßschmidstraße 5

80639 München (DE)

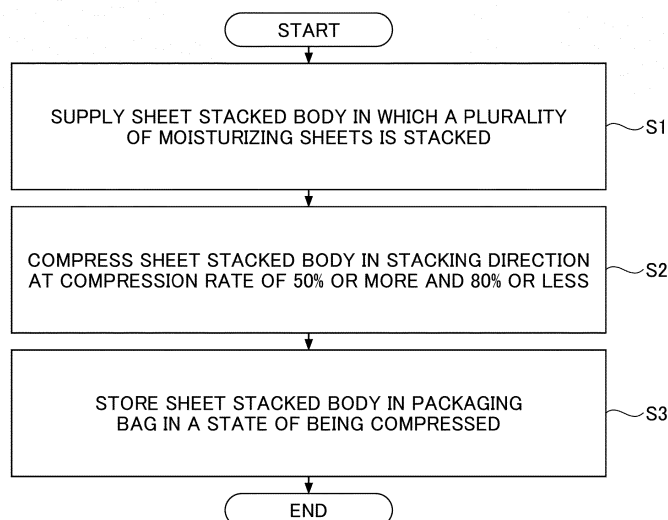
(30) Priority: **21.01.2020 JP 2020007598**

(54) **SHEET PACKAGING BODY, SHEET SET PACKAGING BODY, SHEET PACKAGING BODY MANUFACTURING METHOD, AND SHEET SET PACKAGING BODY MANUFACTURING METHOD**

(57) A sheet package includes: a sheet stacked body in which a plurality of moisturizing sheets is stacked; and a packaging bag in which the sheet stacked body is packaged, wherein the sheet stacked body is stored in the

packaging bag in a state of being compressed in a stacking direction at a compression rate of 50% or more and 80% or less.

FIG.4



EP 4 095 068 A1

Description

[Technical Field]

5 **[0001]** The present invention relates to a sheet package, a sheet set package, a method for manufacturing the sheet package, and a method for manufacturing the sheet set package.

[Background Art]

10 **[0002]** Carton-type sheet packages in which hygienic sheets such as tissue paper are stored in a pasteboard box are widely used. In recent years, the demand for soft pack-type sheet packages stored in a film-like packaging bag is increasing from the viewpoint of transportation, storage, disposal, environmental load, cost, and the like. Among hygienic sheets, there is a high demand for moisturizing hygienic sheets that feels soft. In addition, such sheet packages are distributed as set packages in which a plurality of sheet packages is stored in a film-like packaging bag (see, for example,
15 PTL 1).

[Citation List]

[Patent Literature]

20 **[0003]** [PTL 1]
Japanese Patent No. 6240734

[Summary of Invention]

25 [Technical Problem]

30 **[0004]** An object of the present invention is to provide a sheet package in which a stable packaging condition is achieved even when a moisturizing sheet is stored.

[Solution to Problem]

35 **[0005]** One aspect of the present invention is: a sheet package including a sheet stacked body in which a plurality of moisturizing sheets is stacked; and a packaging bag in which the sheet stacked body is packaged, wherein the sheet stacked body is stored in the packaging bag in a state of being compressed in a stacking direction at a compression rate of 50% or more and 80% or less.

[Advantageous Effects of Invention]

40 **[0006]** According to one aspect of the present invention, a sheet package in which a stable packaging condition is achieved even when a moisturizing sheet is stored, can be provided.

[Brief Description of the Drawings]

45 **[0007]**

[FIG. 1]

FIG. 1 is a diagram illustrating a sheet package according to an embodiment;

[FIG. 2]

50 FIG. 2 is a diagram illustrating a sheet stacked body before being stored in a packaging bag (before compression);

[FIG. 3]

FIG. 3 is a left side view of FIG. 1 (a view of FIG. 1 in the X direction);

[FIG. 4]

55 FIG. 4 is a flowchart illustrating an example of a method for manufacturing the sheet package according to an embodiment;

[FIG. 5]

FIG. 5 is a diagram illustrating a sheet set package according to an embodiment;

[FIG. 6]

FIG. 6 is a diagram illustrating a plurality of sheet packages before being stored in a set packaging bag (before compression);

[FIG. 7]

FIG. 7 is a front view of FIG. 5 (a view of FIG. 5 in the Y direction);

[FIG. 8]

FIG. 8 is a diagram illustrating a stacking pattern (immediately after stacking) of sheet set packages;

[FIG. 9]

FIG. 9 is a diagram illustrating a stacking pattern (after 1 week) of sheet set packages (compression rate is less than 90%) in which the sheet packages (compression rate is 74%) are stored;

[FIG. 10]

FIG. 10 is a diagram illustrating a stacking pattern (after 1 week) of sheet set packages (compression rate is less than 90%) in which the sheet packages (compression rate is 74%) are stored, or sheet set packages (compression rate is less than 90%) in which the sheet packages (compression rate is 90%) are stored;

[FIG. 11]

FIG. 11 is a diagram illustrating a stacking pattern (after 1 week) of sheet set packages (compression rate is 95%) in which the sheet packages (compression rate is 90%) are stored;

[FIG. 12]

FIG. 12 is a diagram illustrating a stacking pattern (after 1 week) of sheet set packages (compression rate is 100%) in which the sheet packages (compression rate is 90%) are stored; and

[FIG. 13]

FIG. 13 is a flowchart illustrating an example of a method for manufacturing the sheet set package according to an embodiment.

[Description of Embodiments]

[0008] In the following, embodiments of the present invention will be described in detail with reference to the drawings. The parts common to each drawing may be designated by the same reference numerals and description thereof may be omitted. The scale of each member in each drawing may differ from the actual scale. In each drawing, the right and left direction (the longitudinal direction of the sheet package), the front and back direction (the depth direction of the sheet package), and the up and down direction (the height direction of the sheet package) are in the X direction, the Y direction, and the Z direction, respectively.

<Sheet package>

[0009] FIG. 1 is a view illustrating a sheet package according to an embodiment. FIG. 2 is a diagram illustrating a sheet stacked body before being stored in a packaging bag (before compression). FIG. 3 is a left side view of FIG. 1 (a view of FIG. 1 in the X direction). A sheet package 100 according to the present embodiment includes a sheet stacked body 10 and a packaging bag 20. As used herein, the sheet package refers to a package in which a plurality of sheets is packaged in a packaging bag. The sheet package 100 is an example of the sheet package according to the present embodiment.

[0010] The sheet stacked body 10 constitutes a sheet stacked body SL in which a plurality of (or a plurality of sets of) moisturizing sheets S is stacked (see FIGS. 1 and 2). As used herein, a moisturizing sheet refers to a sheet in which a moisturizing ingredient is applied or impregnated. Such a moisturizing sheet is also called a lotion tissue.

[0011] The moisturizing ingredient is not particularly limited, but for example, a polyol is used. Examples of a polyol include glycerin, 1,3-butylene glycol, propylene glycol, dipropylene glycol, tripropylene glycol, diethylene glycol, triethylene glycol, hexylene glycol, and benzyl glycol. Among these, glycerin is preferable. These polyols may be used alone or in combination with two or more. The additive amount of the moisturizing ingredient is freely decided.

[0012] Because the moisturizing sheet stores such a moisturizing ingredient, moisture in the air tends to be absorbed. Therefore, the sheet stacked body made of a plurality of moisturizing sheets tends to absorb moisture due to changes over time and collapse in a stacking direction, being reduced in bulkiness. When the bulkiness of the sheet stacked body is reduced in the packaging bag, the packaging condition of the sheet stacked body may become unstable. As a result, the appearance of the sheet package may become deteriorated, or the stacking condition of the sheet stacked body may become disrupted in the packaging bag.

[0013] As used herein, the stacking direction refers to the direction SD in which the moisturizing sheets S constituting the sheet stacked body 10 are stacked (see FIG. 1). In the present embodiment, the sheet stacked body 10 is stored in the packaging bag 20 so that the stacking direction of the moisturizing sheets S (in the SD direction) is in the height direction (the Z direction). The sheet stacked body 10 is configured so that the moisturizing sheet S can be pulled out one by one (or one set at a time) through a dispensing opening 21A formed on the top surface 21 of the packaging bag

20 (see FIG. 1).

[0014] The sheet stacked body 10 is preferably one in which each moisturizing sheet S is stacked alternately in a folded state (what is known as a pop-up type sheet stacked body 10) from the viewpoint of pulling out the moisturizing sheets S one by one or one set at a time. The configuration of the sheet stacked body 10 is not limited to one that can be pulled out in a pop-up manner, and may be one in which the plurality of (or the plurality of sets of) moisturizing sheets S is simply stacked, or one in which each moisturizing sheet S is stacked in a folded state.

[0015] The sheet stacked body 10 may have a length of 155 mm or more and 230 mm or less in the longitudinal direction (in the X direction) of the sheet package 100, a length of 90 mm or more and 120 mm or less in the depth direction (in the Y direction) perpendicular to the longitudinal direction (the X direction) of the sheet package 100, and a thickness of 30 mm or more and 100 mm or less in the thickness direction (in the Z direction). Such a stacked body of sheets may be manufactured, for example, using a rotary or multi-stand inter folder.

[0016] The form of the moisturizing sheet S constituting the sheet stacked body 10 is not particularly limited. For example, the moisturizing sheet S can be applied to hygienic sheets such as tissue paper, toilet paper, kitchen paper, paper towels, and the like. The application of the moisturizing sheet S is not particularly limited. For example, the moisturizing sheet S can be applied to industrial, household, and portable applications. Among these, the moisturizing sheet S can be suitably used as a household tissue. The specification of the moisturizing sheet S (material, number of plies, basis weight, thickness, and the like) is freely decided.

[0017] In the packaging bag 20, the sheet stacked body 10 is packaged. The packaging bag 20 includes a top surface 21, a bottom surface 22, a front surface 23, a back surface 24, a side surface 25, and a side surface 26 in a state where the sheet stacked body 10 is stored in the packaging bag 20. In the packaging bag 20, the top surface 21 and the bottom surface 22 face in the up and down direction (in the Z direction), the front surface 23 and the back surface 24 face in the front and back direction (in the Y direction), and the side surface 25 and the side surface 26 face in the right and left direction (in the X direction). The side surface 25 and the side surface 26 are continuous with any of the top surface 21, the bottom surface 22, the front surface 23, and the back surface 24 (see FIG. 1).

[0018] The dispensing opening 21A is provided on the top surface 21 of the packaging bag 20. The dispensing opening 21A is configured so that the moisturizing sheet S can be pulled out. The form of the dispensing opening 21A is not particularly limited. The dispensing opening 21A may be configured by, for example, a continuous cut, an elongated opening, and the like. In the present embodiment, a continuous cut is formed by breaking perforations (intermittent cuts or cleavage cuts) (see FIG. 1).

[0019] The form of the packaging bag 20 is not particularly limited. The packaging bag 20 may be formed of, for example, a flexible film. The material of the flexible film is not particularly limited, and for example, resins such as polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET), polystyrene (PS), polyvinyl chloride (PVC), ethylene-vinyl acetate copolymer (EVA), polyamide (PA), and the like may be used.

[0020] Among these flexible films, polyethylene, polypropylene, polyethylene terephthalate, and the like are preferable from the viewpoint of flexibility, excellent handling, high sealability when heat-sealed, and low cost. In addition, polyethylene is preferable from the viewpoint that it is odorless, excellent in water resistance and chemical resistance, and capable of mass production at low cost. As the polyethylene, a high-density polyethylene, a low-density polyethylene, and the like may be used. In addition, polypropylene is preferable from the viewpoint of being robust, being easy to shape, having good color development at the time of printing, and being able to impart gloss.

[0021] The form of the flexible film forming the packaging bag 20 is not particularly limited. The packaging bag 20 may be a single layer film in which the resin is formed as a single layer, a laminated film in which the resin is laminated, or a mixed film formed of a mixture of two or more of the resins described above.

[0022] The thickness of the flexible film forming the packaging bag 20 is not particularly limited, and preferably 20 μm or more and 100 μm or less, and more preferably 25 μm or more and 70 μm or less. When the thickness of the flexible film is 20 μm or more, it is possible to ensure sufficient strength as the packaging bag 20 in which the moisturizing sheet S is stored. Further, when the thickness of the flexible film is 100 μm or less, it is possible to ensure flexibility and lightness of the packaging bag 20, and cost can be reduced.

[0023] The material forming the packaging bag 20 is not limited to the resin material including the above-described flexible film and the like, and a paper material may be used. As the material forming the packaging bag 20, a biodegradable material (biodegradable plastic, biodegradable paper, and the like) and a biomass material (renewable biological organic resources such as a biomass film excluding fossil resources) may be used.

[0024] The packaging form of the packaging bag 20 is not particularly limited. In the present embodiment, for example, packaging in which both ends of a tubular flexible film are folded and sealed (caramel packaging), packaging in which both ends or one end of a tubular flexible film folded into a gusset is sealed (pillow packaging), packaging in which a heat-shrinkable resin film is heated and brought into close contact with the object to be packaged (shrink packaging), packaging in combination thereof, and the like may be used.

[0025] In the present embodiment, the sheet stacked body 10 is packaged in the caramel packaging (see FIG. 1). Specifically, the sheet stacked body 10 is wrapped in a cylindrical shape by a flexible film such that both ends of the

flexible film are opened in the longitudinal direction (in the X direction), and the portion overlapping in the wrapping direction of the flexible film is bonded by a fusion treatment or by using an adhesive. Then, both ends of the cylindrical flexible film in the longitudinal direction (the X direction) are folded to the end face of the sheet stacked body 10. The substantially triangular or substantially trapezoidal pieces formed by the folding are overlapped at least at each tip edge and bonded by a fusion treatment or using an adhesive to seal the openings at both ends. In the present embodiment, both ends of the cylindrical flexible film (the side surfaces 25 and 26 of the packaging bag 20) are folded and sealed (see FIG. 1).

[0026] In the sheet package 100 of the present embodiment, the sheet stacked body 10 is stored in the packaging bag 20 in a state of being compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less. The compression rate refers to the ratio of the stacked height H2 of the sheet stacked body 10 (SL) after compression to the stacked height H1 of the sheet stacked body 10 (SL) before compression, when the sheet stacked body 10 is compressed in the stacking direction SD (see FIGS. 2 and 3).

[0027] In the present embodiment, the stacked height H2 of the sheet stacked body 10 after compression in the stacking direction SD is lower than the stacked height H1 before compression (see FIGS. 2 and 3). When the stacked height H1 is set to 100%, the stacked height H2 is 50% or more and 80% or less, preferably 55% or more and 75% or less, and more preferably 60% or more and 70% or less. When the compression rate exceeds 80%, compression may be insufficient. When the compression rate is less than 50%, the packaging bag 20 may become damaged or may not be sealed.

[0028] In the present embodiment, the sheet stacked body 10 in which the plurality of moisturizing sheets S is stacked is stored in the packaging bag 20 in a state of being compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less. Accordingly, even when the moisturizing sheet S absorbs moisture due to changes over time, it is possible to prevent the bulkiness of the sheet stacked body 10 in the packaging bag 20 from being reduced. Therefore, it is possible to provide the sheet package 100 in which the packaging condition of the sheet stacked body 10 is stable.

[0029] In the present embodiment, because the sheet stacked body 10 is packaged in the caramel packaging, the sheet stacked body 10 compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less can be easily stored in the packaging bag 20. Further, the packaging bag 20 in which the sheet stacked body 10 compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less is stored can be easily sealed.

<Method for manufacturing sheet package>

[0030] FIG. 4 is a flowchart illustrating an example of a method for manufacturing a sheet package according to an embodiment. In the method for manufacturing the sheet package according to the embodiment, step S1, step S2, and step S3 are performed. By performing the method for manufacturing the sheet package, the sheet package 100 described above is obtained.

[0031] In step S1, the sheet stacked body 10 in which the plurality of moisturizing sheets S is stacked is supplied (see FIG. 4). In the present embodiment, as the sheet stacked body 10 constituting the sheet package 100 described above, a sheet stacked body SL in which the plurality of (or the plurality of sets of) moisturizing sheets S is stacked is prepared (see FIG. 2).

[0032] In step S2, the sheet stacked body 10 is compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less (see FIG. 4). In the present embodiment, the sheet stacked body 10 constituting the sheet package 100 is compressed in the stacking direction SD so that the stacked height H2 after compression is 50% or more and 80% or less when the stacked height H1 before compression is 100% (see FIGS. 2 and 3).

[0033] In step S3, the sheet stacked body 10 is brought to be stored in the packaging bag 20 in a state of being compressed (see FIG. 4). In the present embodiment, the sheet stacked body 10 described above is stored in the packaging bag 20 in a state of being compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less. The side surfaces 25 and 26 of the packaging bag 20 in which the sheet stacked body 10 is stored are sealed so that the compression rate in the packaging bag 20 is maintained at 50% or more and 80% or less (see FIGS. 1 to 3).

[0034] In the method for manufacturing the sheet package according to the present embodiment, the sheet stacked body 10 in which the plurality of moisturizing sheets S is stacked is stored in the packaging bag 20 in a state of being compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less (see FIG. 4). Accordingly, even when the moisturizing sheet S absorbs moisture due to changes over time, it is possible to prevent the bulkiness of the sheet stacked body 10 in the packaging bag 20 from being reduced. Therefore, it is possible to provide the sheet package 100 in which the packaging condition of the sheet stacked body 10 is stable.

<Sheet set package>

[0035] FIG. 5 is a diagram illustrating a sheet set package according to an embodiment. FIG. 6 is a diagram illustrating a plurality of sheet packages before being stored in a set packaging bag (before compression). FIG. 7 is a front view of

[0036] The sheet set package 200 according to the present embodiment includes a plurality of sheet packages 100 and a set packaging bag 30. The sheet set package 200 is an example of the sheet set package according to the present embodiment. The plurality of sheet packages 100 is an example of a plurality of the sheet packages constituting the sheet set package according to the present embodiment. The set packaging bag 30 is an example of the set packaging bag constituting the sheet set package according to the present embodiment.

[0037] As the plurality of sheet packages 100, the sheet package 100 described above may be used. Specifically, in the sheet package 100, the sheet stacked body 10 in which the plurality of (or the plurality of sets of) moisturizing sheets S is stacked is stored in the packaging bag 20. In the sheet package 100, preferably, the sheet stacked body 10 is stored in the packaging bag 20 in a state of being compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less (see FIGS. 1 to 3).

[0038] The set packaging bag 30 stores the plurality of sheet packages 100. The set packaging bag refers to a packaging bag in which a plurality of sheet packages are packaged together. In the present embodiment, five sheet packages 100 (sheet packages 101, 102, 103, 104, and 105) are stored as the plurality of sheet packages 100 (see FIG. 5). The number of the plurality of sheet packages 100 stored in the set packaging bag 30 is not limited as long as the number is two or more.

[0039] The set packaging bag 30 includes a top surface 31, a bottom surface 32, a front surface 33, a back surface 34, a side surface 35, and a side surface 36 in a state where the plurality of sheet packages 100 is stored in the set packaging bag 30. In the set packaging bag 30, the top surface 31 and the bottom surface 32 face in the up and down direction (in the Z direction), the front surface 33 and the back surface 34 face in the front and back direction (in the Y direction), and the side surface 35 and the side surface 36 face in the right and left direction (in the X direction). The side surface 35 and the side surface 36 are continuous with any of the top surface 31, the bottom surface 32, the front surface 33, and the back surface 34 (see FIG. 5).

[0040] The form of the set packaging bag 30 is not limited. For example, packaging in which both ends of a tubular flexible film are folded and sealed (caramel packaging), packaging in which both ends or one end of a tubular flexible film folded into a gusset is sealed (pillow packaging), packaging in which a heat-shrinkable resin film is heated and brought into close contact with the object to be packaged (shrink packaging), packaging in combination thereof, and the like may be used. In the present embodiment, as illustrated in FIG. 5, the top surface 31 and the bottom surface 32 are sealed in the pillow packaging.

[0041] The material forming the set packaging bag 30 is not limited to the resin, and paper may be used. As the material forming the set packaging bag 30, a biodegradable material (biodegradable plastic, biodegradable paper, and the like) and a biomass material (renewable biological organic resources such as a biomass film excluding fossil resources) may be used.

[0042] When the set packaging bag 30 is formed using a resin film, the material of the resin film is not particularly limited. For example, a resin film of polyethylene (PE), a stacked body (PE/EVOH/PE) of PE-ethylene vinyl alcohol copolymer (EVOH)-PE, and the like may be used. The thickness of the resin film is not particularly limited. The thickness may be 10 μm to 70 μm , preferably 15 μm to 60 μm , and more preferably from 20 μm to 50 μm .

[0043] The set packaging bag 30 may be provided with a holder 37 as illustrated in FIG. 5. The holder 37 is provided on the top (the top surface 31) of the set packaging bag 30. The holder 37 constitutes a portion for grasping the sheet set package 200 with fingers or palms (hereinafter referred to as fingers and the like). Specifically, a lower end 37A of the holder 37 is connected to a center 31A in the depth direction (in the Y direction) of the top surface 31 of the set packaging bag 30 (see FIG. 5).

[0044] The shape of the holder 37 is not limited, and may be, for example, such that the contour shape of the holder 37 when viewed in the thickness direction (in the Y direction) is a square shape such as a rectangle (see FIG. 5). In FIG. 5, for ease of understanding, the holder 37 is illustrated in a raised state in the height direction (in the Z direction). The holder 37 is usually in a state of being laid down on the top surface 31 of the set packaging bag 30 when manufactured and sold.

[0045] The dimensions of the holder 37 are not limited, and may be determined by dimensions of the set packaging bag 30, dimensions of a finger hook described below, and the like. When the shape of the holder 37 is rectangular, for example, the dimension of the holder 37 in the longitudinal direction (in the X direction) may be 150 to 500 mm, preferably 160 to 400 mm, and more preferably 170 to 300 mm. Also, the dimension of the holder 37 in the height direction (in the Z direction) may be 35 to 150 mm, preferably 40 to 130 mm, and more preferably 45 to 100 mm.

[0046] The holder 37 may be formed of a resin film and the like, similar to the set packaging bag 30. The holder 37 is formed on the top (the top surface 31) of the set packaging bag 30 by sealing (not illustrated). Specifically, the center

31A of the top surface 31 of the set packaging bag 30 is sealed by sealing (see FIG. 5). As the sealing, heat sealing is performed. The heat sealing may be performed by embossing the resin film folded into a gusset as described above with a heat plate for holder molding (stamp method).

[0047] In the present embodiment, the holder 37 is integrally formed with the set packaging bag 30 as a part of the resin film folded into a gusset. The form of the holder is not limited to this configuration. For example, the holder may be formed on the set packaging bag of caramel packaging or shrink packaging as a separate member (or retrofitted) from the set package.

[0048] The holder 37 is also formed on the center 31A of the top surface 31 of the set packaging bag 30. The position where the holder 37 is provided is not limited to the top surface 31 of the set packaging bag 30, but may be a surface other than the top surface 31 (the bottom surface 32, the front surface 33, the back surface 34, the side surface 35, and the side surface 36). In this case, the surface other than the top surface 31 of the set packaging bag 30 is the top of the set packaging bag 30.

[0049] In the holder 37, the folded resin film is sealed by stacking four layers at both ends (ends 37B and 37C) of the holder 37 in the longitudinal direction (in the X direction) and stacking two layers near the center portion 37D of the holder 37. The form of the sealing is not limited to the heat sealing, and a seal may be formed by applying an adhesive, a pressure-sensitive adhesive, and the like.

[0050] The holder 37 may be provided with air holes (not illustrated) communicating the interior and exterior of the set packaging bag 30 so that the set packaging bag 30 to which the holder 37 is attached does not burst during manufacture or distribution of the sheet set package 200.

[0051] On the holder 37, a finger hook (not illustrated) may also be formed. The form of the finger hook is not particularly limited. The finger hook may be formed of a cut such as a slit, for example. The cut may be made of intermittent slits, such as perforations, and the finger hook may be formed by breaking the perforations. The shape of the cut is not limited, and may be any shape such as a straight line, a curve, a wavy line, a circle, an ellipse, a square, and the like, or a shape similar to these.

[0052] The number of the finger hook is not limited, and one or more cuts may be formed. When two or more cuts are formed, a predetermined distance may be spaced in the longitudinal direction (in the X direction) of the holder 37.

[0053] A reinforcement film (not illustrated) may be provided on the holder 37. The reinforcement film may be formed of a resin film. The material of the reinforcement film is not particularly limited. The material of the reinforcement film may be the same as or different from that of the resin film constituting the holder 37.

[0054] As the resin film, for example, a resin film of such as polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET), and a stacked body (PE/EVOH/PE) of PE-ethylene vinyl alcohol copolymer (EVOH)-PE, polyvinylidene chloride (PVDC), and the like may be used. By providing such a reinforcement film, the holder 37 on which the finger hook is formed (for example, the center portion 37D of the holder 37) can be reinforced.

[0055] The thickness of the reinforcement film is freely determined. For example, the thickness of the reinforcement film may be 20 μm or more, preferably 30 μm to 150 μm , more preferably 50 μm to 130 μm . When the thickness of the reinforcement film is within the range, it is possible to prevent the holder 37 from stretching or breaking. The reinforcement film may be bonded to the holder 37 during the formation of the seal by the heat sealing and the like described above.

[0056] In the sheet set package 200 of the present embodiment, five sheet packages 100 (the sheet packages 101, 102, 103, 104, and 105), as the plurality of sheet packages 100, are stored in apposition in the set packaging bag 30 (see FIG. 5). The manner in which the plurality of sheet packages 100 (the sheet packages 101 to 105) is stored in apposition is freely determined. The plurality of sheet packages 100 is preferably positioned in apposition in a state where the stacking directions SD of the sheet packages 101 to 105 are matched (see FIGS. 1 to 3, 5, and 6).

[0057] Here, "positioned in apposition in a state where the stacking directions SD are matched" refers to a state where each of the sheet packages 100 (the sheet packages 101 to 105) is positioned in apposition in a direction in which the stacking directions SD overlap (see FIG. 5). In the present embodiment, the stacking direction SD of each of the sheet packages 100 (the sheet packages 101 to 105) matches the apposition direction of each of the sheet packages 100 (the sheet packages 101 to 105). The apposition direction refers to a direction JD in which the plurality of sheet packages 100 (the sheet packages 101 to 105) constituting the sheet set package 200 is arranged (see FIG. 5).

[0058] In the present embodiment, as illustrated in FIG. 5, when the sheet set package 200 is positioned so that the holder 37 of the set packaging bag 30 faces upward, a direction in which the plurality of sheet packages 100 (the sheet packages 101 to 105) is arranged is the apposition direction JD. In FIG. 5, when the sheet set package 200 is positioned so that the side surface 35 faces downward and the side surface 36 faces upward, the height direction (the Z direction) is the stacking direction SD (the apposition direction JD) of the sheet packages 101 to 105.

[0059] In the sheet set package 200 of the present embodiment, the plurality of sheet packages 100 (the sheet packages 101 to 105) is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90%. The compression rate herein refers to the ratio of the apposition length L2 of the plurality of sheet packages 100 (the sheet packages 101 to 105) after compression to the apposition length L1 of the plurality of sheet packages before compression, when the plurality of sheet packages 100 (the sheet

packages 101 to 105) is compressed in the apposition direction JD (see FIGS. 6 and 7).

[0060] In the present embodiment, the apposition length L2 of the plurality of sheet packages 100 (the sheet packages 101 to 105) after compression in the apposition direction JD is shorter than the apposition length L1 before compression (see FIGS. 6 and 7). When the apposition length L1 is set to 100%, the apposition length L2 is 60% or more and less than 90%, preferably 65% or more and less than 85%, and more preferably 70% or more and less than 80%. When the compression rate is 90% or more, compression may be insufficient. When the compression rate is less than 60%, the set packaging bag 30 may be damaged or may not be sealed.

[0061] In the sheet set package 200, the sheet stacked body 10 made of the plurality of moisturizing sheets S tends to be reduced in bulkiness due to changes over time as described above. When the bulkiness of the sheet stacked body 10 constituting each of the sheet packages 100 (the sheet packages 101 to 105) is reduced in the set packaging bag 30, the packaging condition of each of the sheet packages 100 (the sheet packages 101 to 105) may become unstable in the sheet set package 200. As a result, the appearance of the sheet set package 200 may become deteriorated, or when the plurality of sheet set packages 200 is stacked on display and the like, the plurality of sheet set packages 200 may become largely inclined and toppled over (see FIGS. 11 and 12).

[0062] In contrast, in the present embodiment, as described above, the plurality of sheet packages 100 (the sheet packages 101 to 105), in which the sheet stacked body 10 compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less is stored, is stored in the set packaging bag 30. Accordingly, even when the moisturizing sheet S absorbs moisture due to changes over time, it is possible to prevent the bulkiness of each of the sheet packages 100 (the sheet packages 101 to 105) in the set packaging bag 30 from being reduced. Therefore, it is possible to provide the sheet set package 200 in which the packaging condition of each of the sheet packages 100 (the sheet packages 101 to 105) is stable.

[0063] In the present embodiment, when the plurality of sheet set packages 200 is stacked, it is possible to prevent the plurality of sheet set package 200 from being largely inclined in a stacked state or toppled over. For example, as illustrated in FIG. 8, when the plurality of sheet set packages 200 (the sheet set packages 201 to 212) is stacked, the stacked state is maintained almost as it was when it was stacked, or slightly inclined, even one week after stacking (see FIGS. 9 and 10).

[0064] In the present embodiment, as described above, the plurality of sheet packages 100 (the sheet packages 101 to 105), which stores the sheet stacked body 10 in which the plurality of moisturizing sheets S is stacked, is positioned in apposition in a state where the stacking directions SD are matched. The plurality of sheet packages 100 (the sheet packages 101 to 105) is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90%. Accordingly, even when the moisturizing sheet S changes over time, it is possible to prevent the bulkiness of each of the sheet packages 100 (the sheet packages 101 to 105) in the set packaging bag 30 from being reduced. Therefore, it is possible to provide the sheet set package 200 in which the packaging condition of each of the sheet packages 100 (the sheet packages 101 to 105) is stable.

[0065] In the present embodiment, the plurality of sheet packages 100 (the sheet packages 101 to 105) is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90%. Accordingly, when the plurality of sheet set packages 200 is stacked, it is possible to prevent the plurality of sheet set packages 200 from being largely inclined in a stacked state or toppled over (see FIGS. 9 and 10).

[0066] In the present embodiment, as described above, in the plurality of sheet packages 100 (the sheet packages 101 to 105), the sheet stacked body 10 compressed in the stacking direction SD at a compression rate of 50% or more and 80% or less is stored in the packaging bag 20. The plurality of sheet packages 100 (the sheet packages 101 to 105) is positioned in apposition in a state where the stacking directions SD are matched and is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90%. Accordingly, even when the moisturizing sheet S changes over time, it is possible to prevent the bulkiness of each of the sheet packages 100 (the sheet packages 101 to 105) in the set packaging bag 30 from being reduced. Therefore, it is possible to provide the sheet set package 200 in which the packaging condition of the plurality of sheet packages 100 (the sheet packages 101 to 105) is stable.

[0067] In the present embodiment, the plurality of sheet packages 100 (the sheet packages 101 to 105) is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90%. Accordingly, when the plurality of sheet set packages 200 is stacked, it is possible to prevent the plurality of sheet set package 200 from being largely inclined in a stacked state or toppled over (see FIGS. 9 and 10).

<Method for manufacturing sheet set package>

[0068] FIG. 13 is a flowchart illustrating an example of a method for manufacturing the sheet set package according to an embodiment. In the method for manufacturing the sheet set package according to the embodiment, step S11, step S12, and step S13 are performed. By performing the method for manufacturing the sheet package, the sheet set package 200 described above is obtained.

[0069] In step S11, in the plurality of sheet packages 100, the sheet stacked body 10 in which the plurality of moisturizing sheets S is stacked is stored in the packaging bag 20. The plurality of sheet packages 100 is positioned in apposition in a state where the stacking directions SD are matched (see FIG. 13). In the present embodiment, five sheet packages 100 (the sheet packages 101 to 105), as the plurality of sheet packages 100, are arranged so that each stacking direction SD matches the apposition direction JD. The sheet packages 100 are positioned so that the top surface 21 and the bottom surface 22 of the adjacent sheet packages 100 are faced (see FIG. 6).

[0070] In step S12, the plurality of sheet packages 100 is compressed in the apposition direction JD at a compression rate of 60% or more and less than 90% (see FIG. 13). In the present embodiment, each of the sheet packages 100 (the sheet packages 101 to 105) is compressed in the apposition direction JD so that, when the apposition length L1 before compression is set to 100%, the apposition length L2 after compression is 60% or more and less than 90% (see FIGS. 6 and 7).

[0071] In step S13, the plurality of sheet packages 100 is brought to be stored in the set packaging bag 30 in a state of being compressed. In the present embodiment, each of the sheet packages 100 (the sheet packages 101 to 105) is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90%. The set packaging bag 30 in which the sheet packages 100 is stored is sealed so that the compression rate in the set packaging bag 30 is maintained at 60% or more and less than 90% (see FIGS. 5 to 7).

[0072] In the method for manufacturing the sheet set package according to the present embodiment, the plurality of sheet packages 100 (the sheet packages 101 to 105), which stores the sheet stacked body 10 in which the plurality of moisturizing sheets S is stacked, is positioned in apposition in a state where the stacking directions SD are matched. The plurality of sheet packages 100 (the sheet packages 101 to 105) is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90% (step S11 to step S13 are performed).

[0073] Accordingly, even when the moisturizing sheet S changes over time, it is possible to prevent the bulkiness of the plurality of sheet packages 100 (the sheet packages 101 to 105) in the set packaging bag 30 from being reduced. Therefore, it is possible to provide the sheet set package 200 in which the packaging condition of the plurality of sheet packages 100 (the sheet packages 101 to 105) positioned in apposition is stable.

[0074] In the method for manufacturing the sheet set package according to the present embodiment, the plurality of sheet packages 100 (the sheet packages 101 to 105) is stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 60% or more and less than 90% (see FIG. 13). Accordingly, when the plurality of sheet set packages 200 is stacked, it is possible to prevent the plurality of sheet set packages 200 from being largely inclined in a stacked state or toppled over (see FIGS. 9 and 10).

[Example]

[0075] Hereinafter, the present invention will be described specifically with reference to Examples. Examples and Comparative Examples were evaluated under the following conditions.

[Sheet package (individual package)]

[0076] A sheet package 100 was prepared in which a tissue paper (dimensions: height approximately 58 mm, width approximately 180 mm, length approximately 101 mm, and weight approximately 120 g), as a sheet stacked body 10, was stored in a packaging bag 20 made of a polyethylene laminated film with a thickness of about 62 μm (see FIGS. 1 to 3). In the tissue paper, moisturizing sheets S were alternately folded and stacked so that the moisturizing sheets S could be pulled out one by one in a pop-up manner.

[Sheet set package]

[0077] Five sheet packages 100 (sheet packages 101 to 105), as a plurality of sheet packages 100, were brought to be stored in apposition in a set packaging bag 30 formed of a polyethylene film of approximately 35 μm thick, in a state where the stacking directions SD were matched and where the plurality of sheet packages 100 was compressed in the apposition direction JD (see FIGS. 5 to 7, and 13).

[Stacking test]

[0078] A pattern (a stacking pattern) 300 was formed in which a plurality of sheet set packages 200 (sheet set packages 201 to 212) was stacked in two rows in six stages (see FIG. 8). A change in the stacking pattern was observed after one week (FIGS. 9 to 12). The evaluation criteria are as follows. The terms Excellent and Good were evaluated as good, and the terms Fair and Poor were evaluated as bad.

Excellent: The stacking pattern changed little.
 Good: The stacking pattern was slightly inclined.
 Fair: The stacking pattern was largely inclined.
 Poor: The stacking pattern toppled over.

[0079] Hereinafter, Examples and Comparative Examples will be described.

[Example 1]

[0080] In the sheet packages 100 (the sheet packages 101 to 105) (individual packages), the sheet stacked body 10 was stored in the packaging bag 20 in a state of being compressed in the stacking direction SD at a compression rate of 74%. In the sheet set package 200 (set package), the sheet packages 100 (the sheet packages 101 to 105) were stored in the set packaging bag 30 in a state of being compressed in the apposition direction JD at a compression rate of 80%. The sheet set package 200 was subjected to the stacking test. The result is given in Table 1.

[Example 2]

[0081] The stacking test was performed in the same manner as Example 1, except that the compression rate of the set package was set to 85%. The result is given in Table 1.

[Example 3]

[0082] The stacking test was performed in the same manner as Example 1, except that the compression rate of the set package was set to 90%. The result is given in Table 1.

[Example 4]

[0083] The stacking test was performed in the same manner as Example 1, except that the compression rate of the individual package was set to 90%. The result is given in Table 1.

[Example 5]

[0084] The stacking test was performed in the same manner as Example 2, except that the compression rate of the individual package was set to 90%. The result is given in Table 1.

[Comparative Example 1]

[0085] The stacking test was performed in the same manner as Example 4, except that the compression rate of the set package was set to 95%. The result is given in Table 1.

[Comparative Example 2]

[0086] The stacking test was performed in the same manner as Example 4, except that the compression rate of the set package was set to 100%. The result is given in Table 1.

[Table 1]

	EXAMPLE 1	EXAMPLE 2	EXAMPLE 3	EXAMPLE 4	EXAMPLE 5	COMPARATIVE EXAMPLE 1	COMPARATIVE EXAMPLE 2
COMPRESSION RATE OF INDIVIDUAL PACKAGE (%)	74	74	74	90	90	90	90
COMPRESSION RATE OF SET PACKAGE (%)	80	85	90	80	85	95	100
STACKING TEST (AFTER ONE WEEK)	EXCEL - LENT	EXCEL - LENT	GOOD	GOOD	GOOD	FAIR	POOR

[0087] From Table 1, when the compression rate of the individual package was 74% and the compression rate of the set package was less than 90%, when the compression rate of the individual package was 74% and the compression rate of the set package was 90%, and when the compression rate of the individual package was 90% and the compression rate of the set package was less than 90%, the stacking patterns after one week were either stacking patterns 301 or 302. That is, the results were good in all cases (see Examples 1 to 5, FIG. 9 and 10).

[0088] In contrast, when the compression rate of the individual package was 90% and the compression rate of the set package was 95% or more, the stacking patterns after one week were either stacking patterns 303 or 304. That is, the results were bad in all cases (see Comparative Examples 1 and 2, FIGS. 11 and 12).

[0089] From these results, it was found that the sheet packages in which the sheet stacked body is stored in the packaging bag in a state of being compressed in the stacking direction at a compression rate of 50% or more and 80% or less can be stably stacked as a sheet set package, even when the sheet stacked body in which moisturizing sheets are stacked is stored. In addition, it was found that the sheet set package in which a plurality of sheet packages is stored in the set packaging bag in a state of being compressed in the apposition direction at a compression rate of 60% or more and less than 90% can be stably stacked, even when the sheet stacked body in which moisturizing sheets are stacked is stored in the sheet package.

[0090] While embodiments of the present invention have been described, the present invention is not limited to any particular embodiment, and various modifications and variations are possible within the scope of the invention as claimed.

[0091] Hereinafter, preferred embodiments of the present invention will be described.

[0092] A first aspect of the present invention provides a sheet package including: a sheet stacked body in which a plurality of moisturizing sheets is stacked; and a packaging bag in which the sheet stacked body is packaged, wherein the sheet stacked body is stored in the packaging bag in a state of being compressed in a stacking direction at a compression rate of 50% or more and 80% or less.

[0093] As used herein, the moisturizing sheet refers to a sheet in which a moisturizing ingredient is applied or impregnated. The stacking direction refers to the direction in which the moisturizing sheets constituting the sheet stacked body are stacked. The compression rate refers to the ratio of the stacked height of the sheet stacked body after compression to the stacked height of the sheet stacked body before compression, when the sheet stacked body is compressed in the stacking direction. The sheet package refers to a package in which a plurality of sheets is packaged in a packaging bag.

[0094] Because the moisturizing sheet stores a moisturizing ingredient, moisture in the air tends to be absorbed. Therefore, the sheet stacked body made of a plurality of moisturizing sheets tends to absorb moisture due to changes over time and collapse in a stacking direction, being reduced in bulkiness. When the bulkiness of the sheet stacked body is reduced in the packaging bag, the packaging condition of the sheet stacked body may become unstable. As a result, the appearance of the sheet package may become deteriorated, or the stacking condition of the sheet stacked body may become disrupted in the packaging bag.

[0095] In the first aspect, the sheet stacked body in which the plurality of moisturizing sheets is stacked is stored in the packaging bag in a state of being compressed in the stacking direction at a compression rate of 50% or more and 80% or less. Accordingly, even when the moisturizing sheet absorbs moisture due to changes over time, it is possible to prevent the bulkiness of the sheet stacked body in the packaging bag from being reduced. Therefore, it is possible to provide the sheet package in which the packaging condition of the sheet stacked body is stable.

[0096] A second aspect of the present invention provides the sheet package wherein the sheet stacked body is packaged in caramel packaging. As used herein, the caramel packaging refers to packaging in which both ends or one end of a tubular film are folded, and bonded or sealed.

[0097] In the second aspect, because the sheet stacked body is packaged in the caramel packaging, the sheet stacked body compressed in the stacking direction at a compression rate of 50% or more and 80% or less can be easily stored in the packaging bag. Further, the packaging bag in which the sheet stacked body compressed in the stacking direction at a compression rate of 50% or more and 80% or less is stored can be easily sealed.

[0098] A third aspect of the present invention provides a sheet set package including a plurality of sheet packages consisting of the sheet package; and a set packaging bag in which the sheet packages are packaged, wherein the sheet packages are stored in the set packaging bag. As used herein, the set packaging bag refers to a packaging bag in which a plurality of sheet packages are packaged together. The sheet set package refers to a package in which a plurality of sheet packages is packaged in the set packaging bag.

[0099] The sheet stacked body made of the plurality of moisturizing sheets tends to be reduced in bulkiness due to changes over time as described above. When the bulkiness of the sheet stacked body constituting each of the sheet packages is reduced in the set packaging bag, the packaging condition of each of the sheet packages may become unstable in the sheet set package. As a result, the appearance of the sheet set package may be deteriorated, or when the plurality of sheet set packages is stacked on display and the like, the plurality of sheet set packages may become largely inclined and toppled over.

[0100] In the third aspect, the plurality of sheet packages, in which the sheet stacked body compressed in the stacking direction at a compression rate of 50% or more and 80% or less is stored, is stored in the set packaging bag. Accordingly,

even when the moisturizing sheet absorbs moisture due to changes over time, it is possible to prevent the bulkiness of each of the sheet packages in the set packaging bag from being reduced. Therefore, it is possible to provide the sheet set package in which the packaging condition of each of the sheet packages is stable. Further, when the plurality of sheet set packages is stacked, it is possible to prevent the plurality of sheet set package from being largely inclined in a stacked state or toppled over.

[0101] A fourth aspect of the present invention provides the sheet set package wherein the sheet packages are positioned in apposition in a state where the stacking directions are matched, and the sheet packages are stored in the set packaging bag in a state of being compressed in an apposition direction at a compression rate of 60% or more and less than 90%.

[0102] As used herein, "positioned in apposition in a state where the stacking direction are matched" refers to a state where each of the sheet packages is positioned in apposition in a direction in which the stacking directions overlap. The apposition direction refers to a direction in which the plurality of sheet packages constituting the sheet set package is arranged. The compression rate refers to the apposition length of the plurality of sheet packages after compression to the apposition length of the plurality of sheet packages before compression, when the sheet packages are compressed in the apposition direction.

[0103] In the fourth aspect, in the plurality of sheet packages, the sheet stacked body compressed in the stacking direction at a compression rate of 50% or more and 80% or less is stored in the packaging bag. The plurality of sheet packages is positioned in apposition in a state where the stacking directions are matched and is stored in the set packaging bag in a state of being compressed in the apposition direction at a compression rate of 60% or more and less than 90%. Accordingly, even when the moisturizing sheet changes over time, it is possible to prevent the bulkiness of each of the sheet package in the set packaging bag from being reduced. Therefore, it is possible to provide the sheet set package in which the packaging condition of the plurality of sheet packages is stable.

[0104] Further, in the fourth aspect, the plurality of sheet packages is stored in the set packaging bag in a state of being compressed in the apposition direction at a compression rate of 60% or more and less than 90%. Accordingly, when the plurality of sheet set packages is stacked, it is possible to prevent the plurality of sheet set package from being largely inclined in a stacked state or toppled over.

[0105] A fifth aspect of the present invention provides a sheet set package including: a plurality of sheet packages in which a sheet stacked body is stored in a packaging bag, the sheet stacked body being a plurality of moisturizing sheets stacked; and a set packaging bag in which the sheet packages are packaged, wherein the sheet packages are positioned in apposition in a state where the stacking directions are matched, and the sheet packages are stored in the set packaging bag in a state of being compressed in an apposition direction at a compression rate of 60% or more and less than 90%.

[0106] In the fifth aspect, the plurality of sheet packages, which stores the sheet stacked body in which the plurality of moisturizing sheets is stacked, is positioned in apposition in a state where the stacking directions are matched. The plurality of sheet packages is stored in the set packaging bag in a state of being compressed in the apposition direction at a compression rate of 60% or more and less than 90%. Accordingly, even when the moisturizing sheet changes over time, it is possible to prevent the bulkiness of each of the sheet packages in the set packaging bag from being reduced. Therefore, it is possible to provide the sheet set package in which the packaging condition of each of the sheet packages is stable.

[0107] Further, in the fifth aspect, the plurality of sheet packages is stored in the set packaging bag in a state of being compressed in the apposition direction at a compression rate of 60% or more and less than 90%. Accordingly, when the plurality of sheet set packages is stacked, it is possible to prevent the plurality of sheet set packages from being largely inclined in a stacked state or toppled over.

[0108] A sixth aspect of the present invention provides a method for manufacturing a sheet set package, the method including: a step for supplying a sheet stacked body in which a plurality of moisturizing sheets is stacked; a step for compressing the sheet stacked body in a stacking direction at a compression rate of 50% or more and 80% or less; and a step for bringing the sheet stacked body to be stored in a packaging bag in a state of being compressed.

[0109] In the sixth aspect, the sheet stacked body in which the plurality of moisturizing sheets is stacked is stored in the packaging bag in a state of being compressed in the stacking direction at a compression rate of 50% or more and 80% or less. Accordingly, even when the moisturizing sheet absorbs moisture due to changes over time, it is possible to prevent the bulkiness of the sheet stacked body in the packaging bag from being reduced. Therefore, it is possible to provide the sheet package in which the packaging condition of the sheet stacked body is stable.

[0110] A seventh aspect of the invention provides a method for manufacturing a sheet package, the method including: a step for positioning a plurality of sheet packages, in which a sheet stacked body is stored in a packaging bag, in apposition in a state where stacking directions are matched, the sheet stacked body being a plurality of moisturizing sheets stacked; a step for compressing a plurality of the sheet packages in an apposition direction at a compression rate of 60% or more and less than 90%; and a step for bringing a plurality of the sheet packages to be stored in a set packaging bag in a state of being compressed.

[0111] In the seventh aspect, the plurality of sheet packages, which stores the sheet stacked body in which the plurality

of moisturizing sheets is stacked, is positioned in apposition in a state where the stacking directions are matched. The plurality of sheet packages is stored in the set packaging bag in a state of being compressed in the apposition direction at a compression rate of 60% or more and less than 90%. Accordingly, even when the moisturizing sheet changes over time, it is possible to prevent the bulkiness of each of the sheet packages in the set packaging bag from being reduced.

Therefore, it is possible to provide the sheet set package in which the packaging condition of the plurality of sheet packages positioned in apposition is stable.

[0112] Further, in the seventh aspect, the plurality of sheet packages is stored in the set packaging bag in a state of being compressed in the apposition direction at a compression rate of 60% or more and less than 90%. Accordingly, when the plurality of sheet set packages is stacked, it is possible to prevent the plurality of sheet set packages from being largely inclined in a stacked state or toppled over.

[0113] The present application claims priority to Japanese Patent Application No. 2020-007598, filed January 21, 2020 with the Japanese Patent Office. The contents of which are incorporated herein by reference in their entirety.

[Description of the Reference Numeral]

[0114]

100, 101, 102, 103, 104, 105 sheet package

10 sheet stacked body

s moisturizing sheet

20 packaging bag

21 top surface

21A dispensing opening

22 bottom surface

23 front surface

24 back surface

25, 26 side surface

SD stacking direction

H1 stacked height (before compression)

H2 stacked height (after compression)

200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212 sheet set package

30 set packaging bag

31 top surface

31A center

32 bottom surface

33 front surface

34 back surface

35, 36 side surface

37 holder

37A lower end

37B end

37C end

37D center portion

JD apposition direction

L1 apposition length (before compression)

L2 apposition length (after compression)

300, 301, 302, 303, 304 stacking pattern

Claims

1. A sheet package comprising:

a sheet stacked body in which a plurality of moisturizing sheets is stacked; and

a packaging bag in which the sheet stacked body is packaged,

wherein the sheet stacked body is stored in the packaging bag in a state of being compressed in a stacking direction at a compression rate of 50% or more and 80% or less.

2. The sheet package according to claim 1, wherein the sheet stacked body is packaged in caramel packaging.

3. A sheet set package comprising:

5 a plurality of sheet packages consisting of the sheet package of claim 1 or 2; and
a set packaging bag in which the sheet packages are packaged,
wherein the sheet packages are stored in the set packaging bag.

10 4. The sheet set package according to claim 3, wherein the sheet packages are positioned in apposition in a state
where the stacking directions are matched, and the sheet packages are stored in the set packaging bag in a state
of being compressed in an apposition direction at a compression rate of 60% or more and less than 90%.

5. A sheet set package comprising:

15 a plurality of sheet packages in which a sheet stacked body is stored in a packaging bag, the sheet stacked
body being a plurality of moisturizing sheets stacked; and
a set packaging bag in which the sheet packages are packaged,
wherein the sheet packages are positioned in apposition in a state where the stacking directions are matched,
and the sheet packages are stored in the set packaging bag in a state of being compressed in an apposition
20 direction at a compression rate of 60% or more and less than 90%.

6. A method for manufacturing a sheet set package, the method comprising:

25 a step for supplying a sheet stacked body in which a plurality of moisturizing sheets is stacked;
a step for compressing the sheet stacked body in a stacking direction at a compression rate of 50% or more
and 80% or less; and
a step for bringing the sheet stacked body to be stored in a packaging bag in a state of being compressed.

7. A method for manufacturing a sheet package, the method comprising:

30 a step for positioning a plurality of sheet packages, in which a sheet stacked body is stored in a packaging bag,
in apposition in a state where stacking directions are matched, the sheet stacked body being a plurality of
moisturizing sheets stacked;
a step for compressing a plurality of the sheet packages in an apposition direction at a compression rate of 60%
35 or more and less than 90%; and
a step for bringing a plurality of the sheet packages to be stored in a set packaging bag in a state of being
compressed.

40

45

50

55

FIG.1

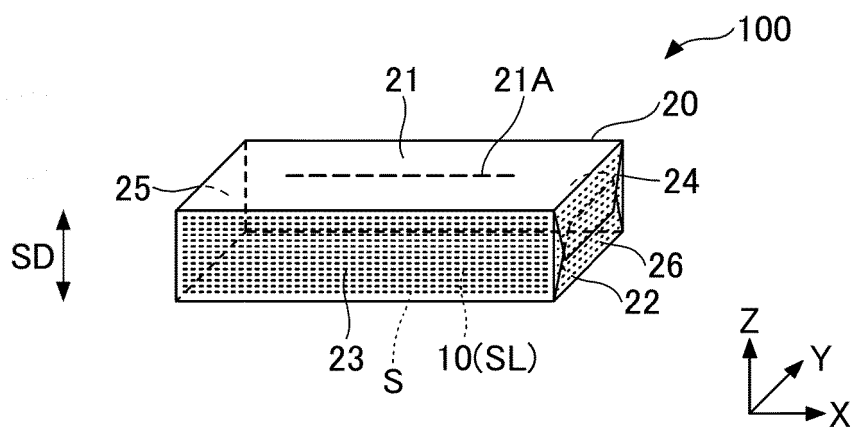


FIG.2

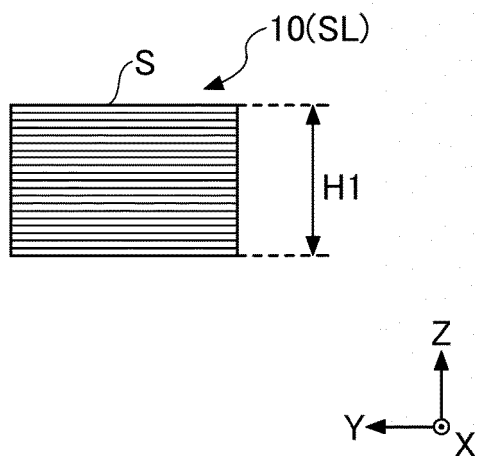


FIG.3

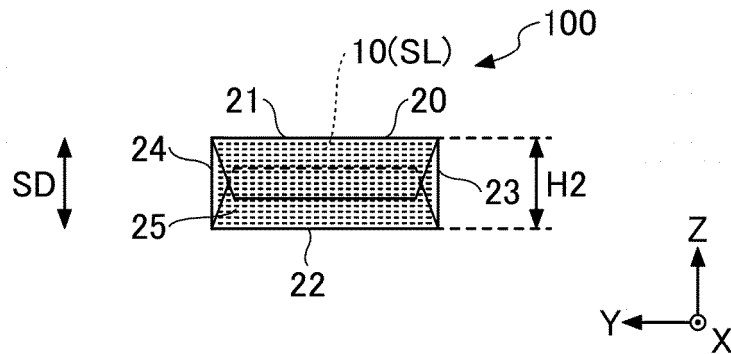


FIG.4

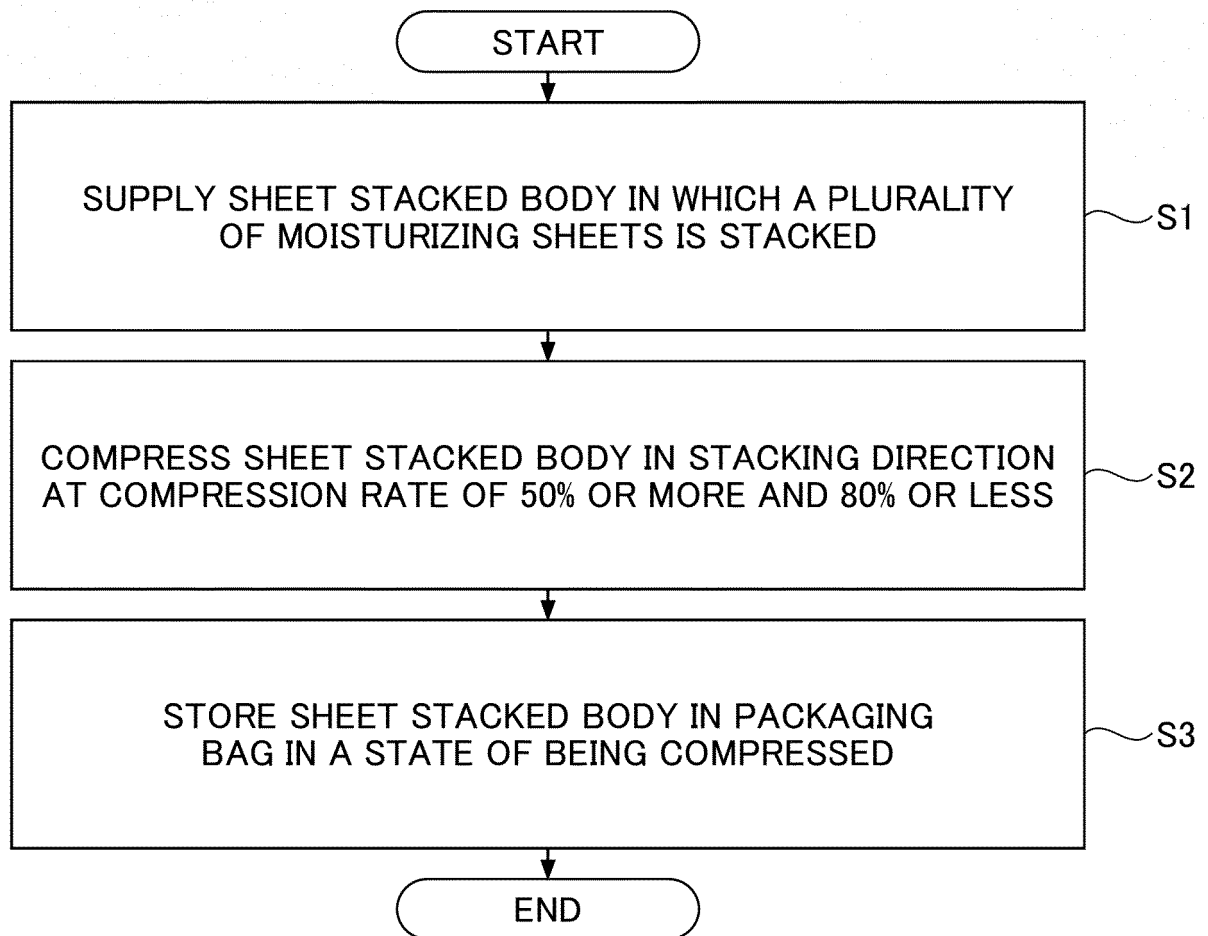


FIG.5

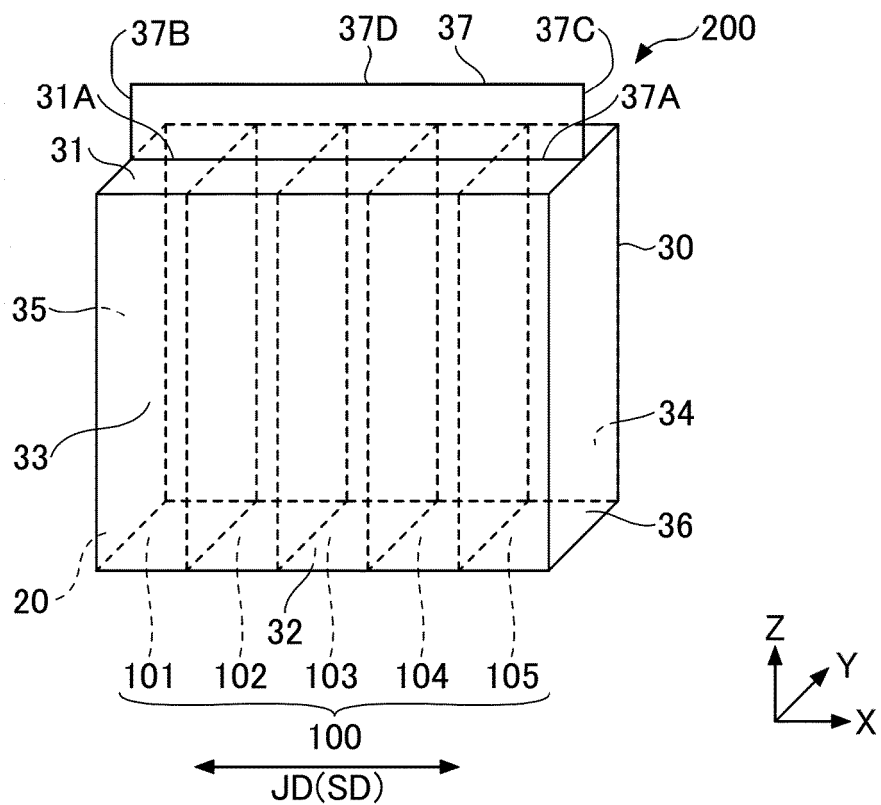


FIG.6

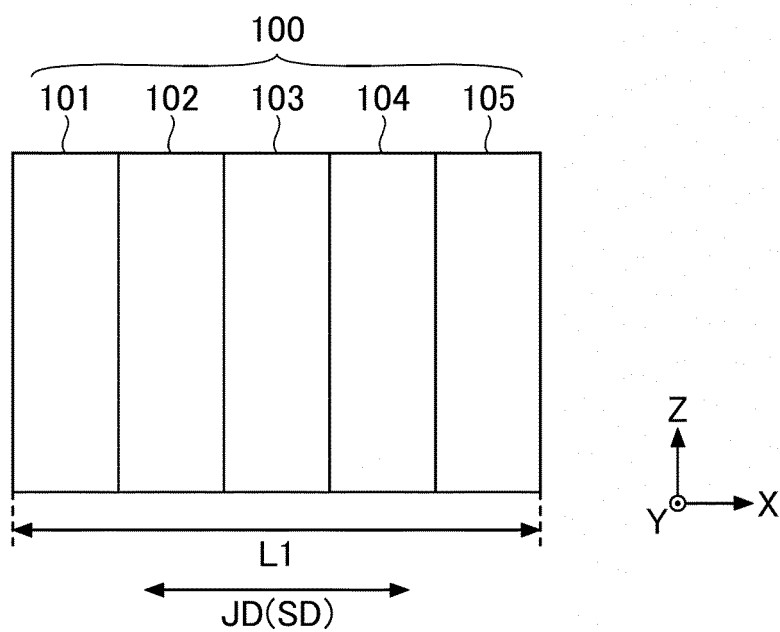


FIG.7

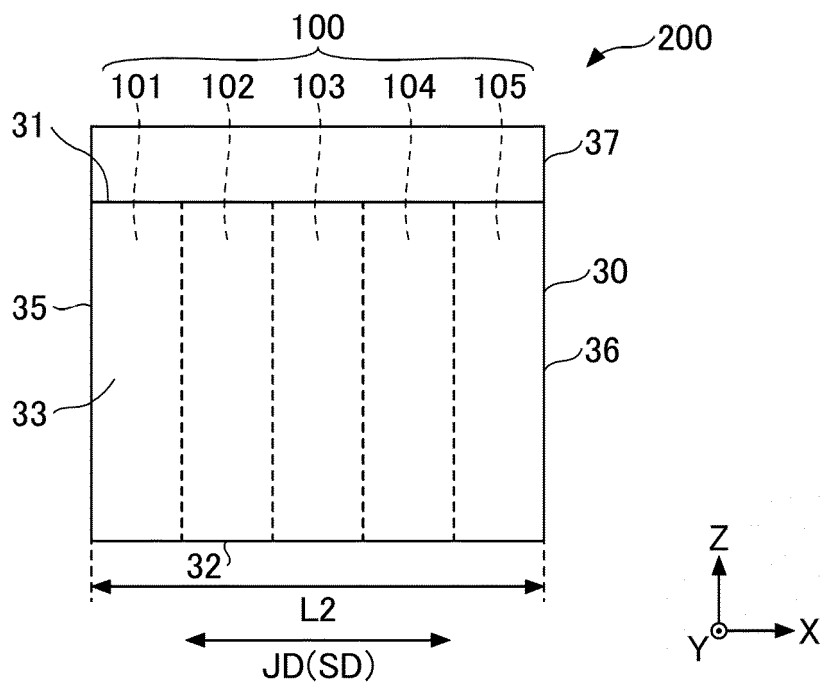


FIG.8

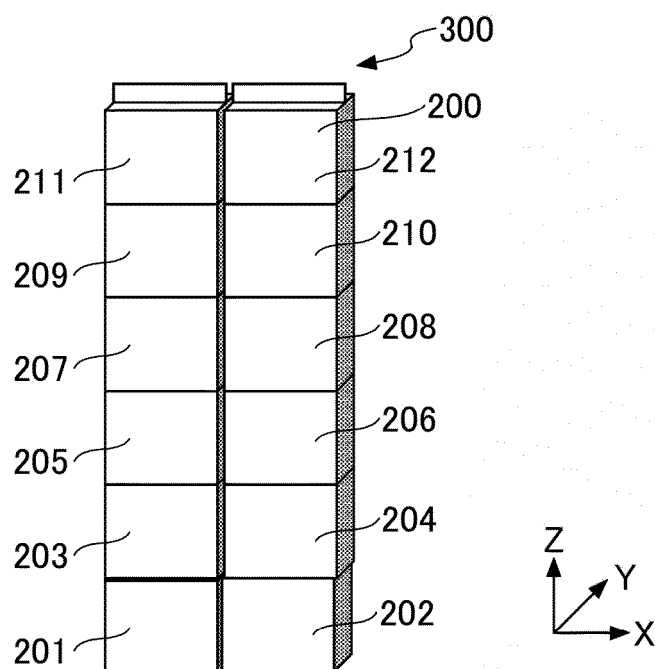


FIG.9

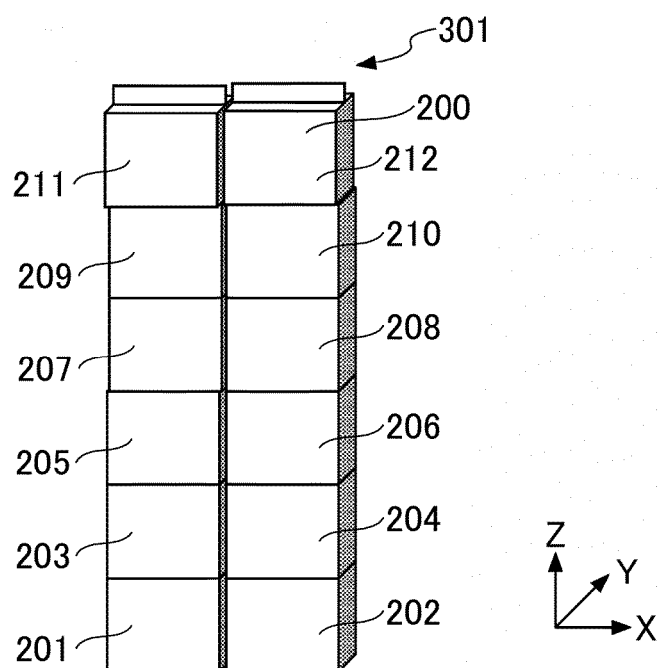


FIG.10

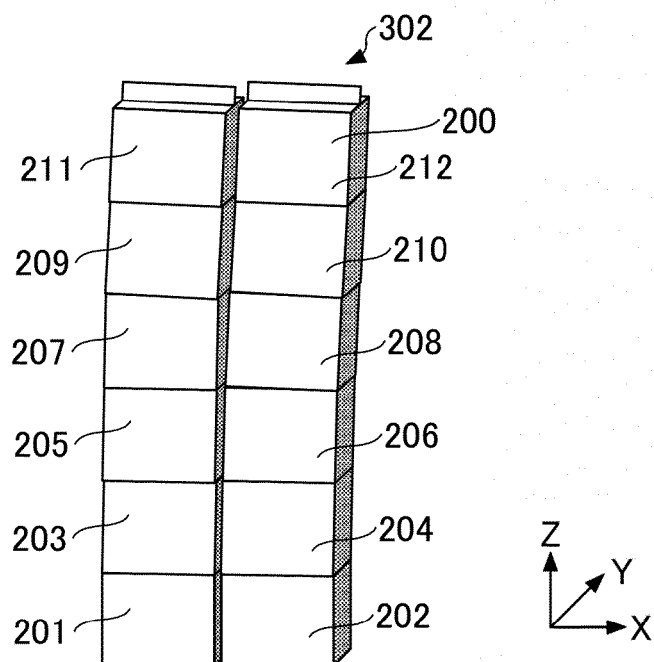


FIG.11

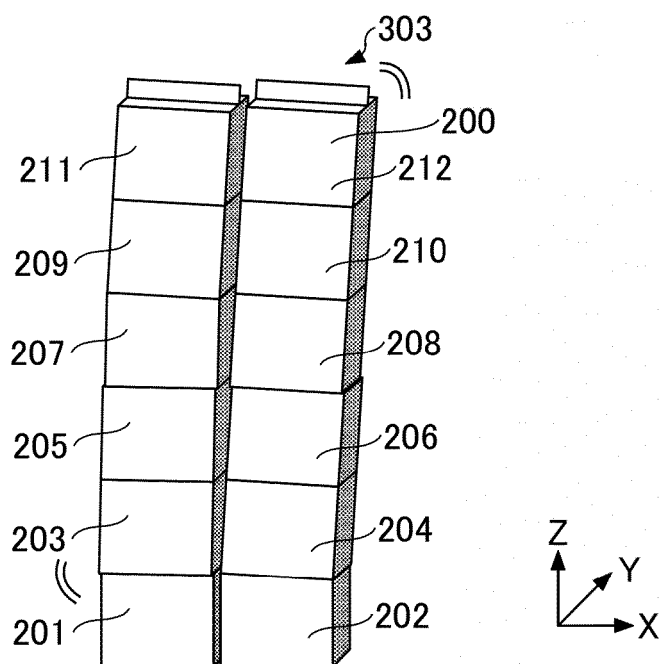


FIG.12

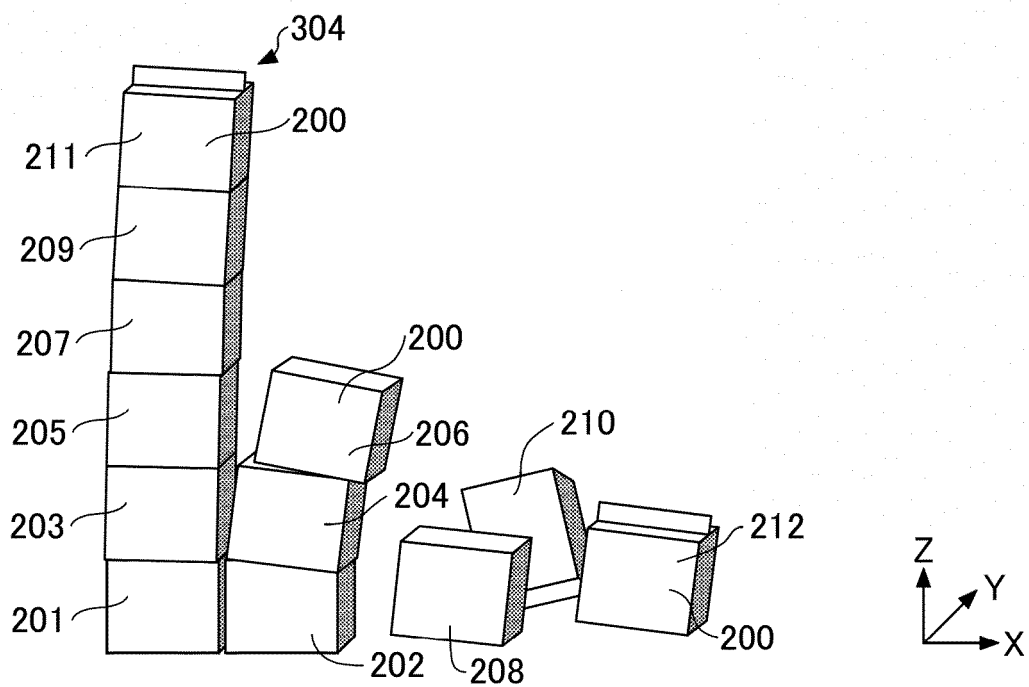
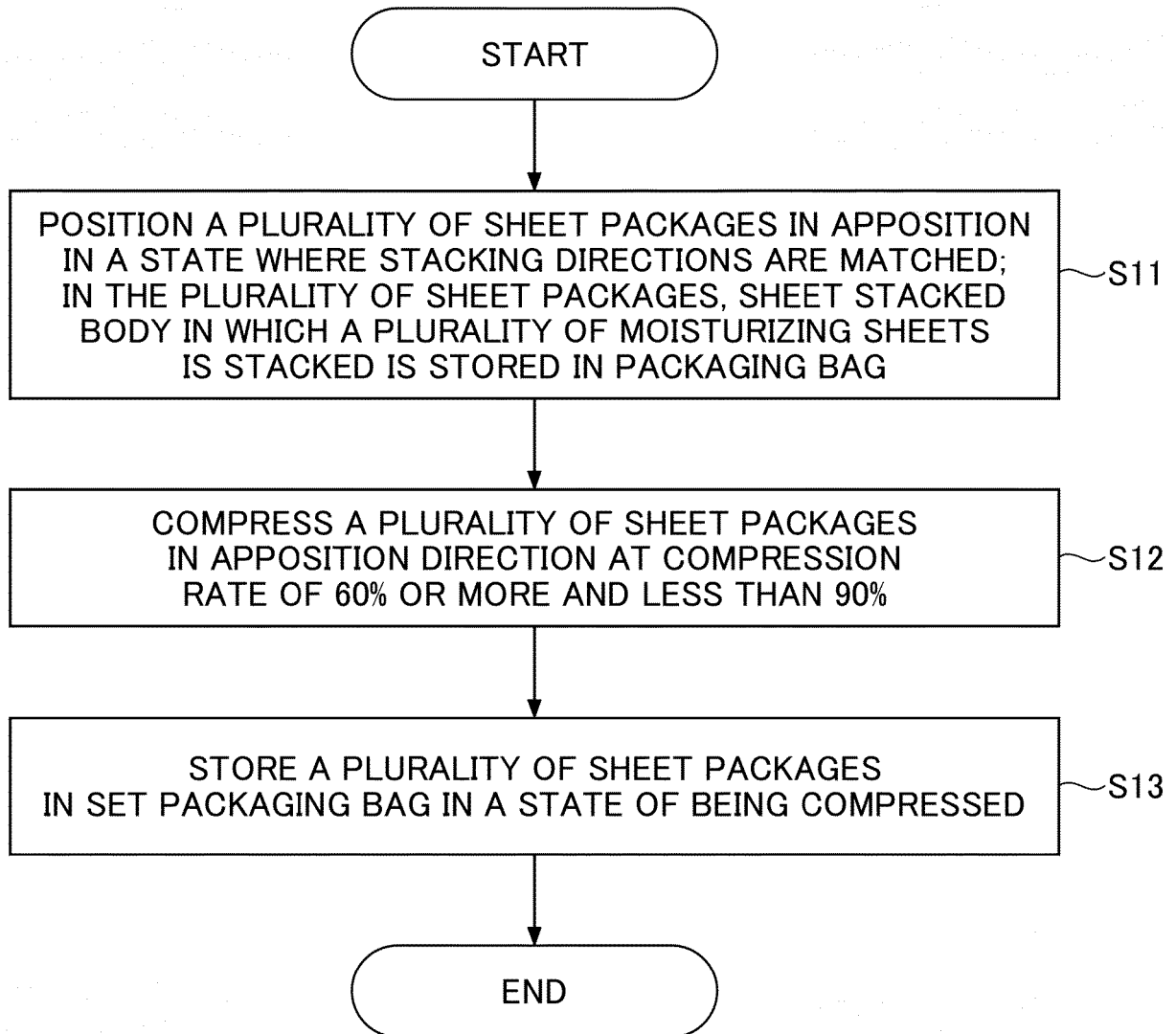


FIG.13



INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2021/001019

A. CLASSIFICATION OF SUBJECT MATTER

B65D 85/07 (2017.01) i

FI: B65D85/07

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D85/07

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Published examined utility model applications of Japan 1922-1996

Published unexamined utility model applications of Japan 1971-2021

Registered utility model specifications of Japan 1996-2021

Published registered utility model applications of Japan 1994-2021

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2010-195443 A (DAIO PAPER CORP.) 09 September 2010 (2010-09-09) paragraphs [0007], [0031]-[0039], [0045], [0056]-[0057], [0066], fig. 1-4	1-2
Y	paragraphs [0007], [0031]-[0039], [0045], [0056]-[0057], [0066], fig. 1-4	3-4, 6
Y	JP 2013-028401 A (DAIO PAPER CORP.) 07 February 2013 (2013-02-07) paragraphs [0032]-[0047], [0064], fig. 1-2	3-4
X	paragraphs [0032]-[0047], [0064], fig. 1-2	5, 7
Y	WO 2015/141671 A1 (CLINPET·JAPAN CO., LTD.) 24 September 2015 (2015-09-24) paragraphs [0015], [0031]-[0036], fig. 5-7	3-4
Y	JP 2018-102858 A (NIPPON PAPER CRECIA CO., LTD.) 05 July 2018 (2018-07-05) paragraphs [0034]-[0036], [0039], [0055], fig. 1, 4	6



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
19 March 2021 (19.03.2021)Date of mailing of the international search report
06 April 2021 (06.04.2021)Name and mailing address of the ISA/
Japan Patent Office
3-4-3, Kasumigaseki, Chiyoda-ku,
Tokyo 100-8915, Japan

Authorized officer

Telephone No.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/JP2021/001019

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
JP 2010-195443 A	09 Sep. 2010	(Family: none)	
JP 2013-028401 A	07 Feb. 2013	(Family: none)	
WO 2015/141671 A1	24 Sep. 2015	US 2016/0368631 A1 paragraphs [0023], [0039]-[0044], fig. 5-7	
		EP 3121126 A1	
		CN 105452111 A	
		CN 107161439 A	
JP 2018-102858 A	05 Jul. 2018	(Family: none)	

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- JP 6240734 B [0003]
- JP 2020007598 A [0113]