

Decision on opposition

Opposition No. 2018-700470

Tokyo, Japan

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The case of opposition against the Patented Invention "packaging material, manufacturing method thereof, package, and packaged article" of Patent No. 6252644 has resulted in the following decision.

Conclusion

The correction of the scope of claims of Patent No. 6252644 shall be approved as stated in the corrected scope of claims attached to the Written Correction Request, as for Claims [1, 2], 3, 4, and 5 after correction.

The patents according to Claims 1 and 3 to 5 shall be revoked.

The opposition to the grant of a patent according to Claim 2 of Patent No. 6252644 shall be dismissed.

Reason

No. 1 History of the procedures

The application of the Patents Inventions according to Claims 1 to 5 of Patent No. 6252644 (hereinafter, referred to as "the Patent") was filed on October 4, 2016, and its patent right was registered on December 8, 2017 (a patent publication was issued on December 27, 2017). After that, for the Patent, an Opposition to the Grant of Patent was filed on June 8, 2018 by the Patent Opponent Norio Isozaki (hereinafter, referred to as "Patent Opponent 1") and another one was filled on June 21, 2018 by the Patent Opponent Takaomi Narita (hereinafter, referred to as "Patent Opponent 2"). Reasons for Rescission were noticed by the body on October 1, 2018. Then, a Written Opinion and a Demand for Correction (hereinafter, referred to as "the Correction Request") were submitted on November 29, 2018. Patent Opponents 1 and 2 submitted their respective Written Opinions on January 9, 2019. Subsequently, Reasons for Rescission (advance notice of decision) were noticed by the body on January 31, 2019. Within the designated period, a Written Opinion was filed on March 25, 2019.

No. 2 Regarding Demand for Correction

1. Contents of correction

The object of the Correction Request is to request to correct the corrected Claims 1 to 5 in the scope of claims for Patent No. 6252644 to those of the corrected scope of claims attached to the Written Demand for Correction. The contents of the correction are to correct the scope of claims attached to the application of the Patent as follows.

(1) Correction A

Correct "a packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and containing a plant-derived polyolefin resin, wherein the adhesive resin layer further includes petroleum-derived low-density polyethylene, the plant-derived polyolefin resin is in the range of 5 to 100 parts by mass with respect to 100 parts by mass in total of the plant-derived polyolefin resin and petroleum-derived low-density polyethylene, and the plant-derived polyolefin resin is plant-derived low-density polyethylene" recited in Claim 1 of the scope of claims to

"a packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier

layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene."

(2) Correction B

Delete Claim 2 in the scope of claims.

(3) Correction C

Correct "a package comprising the packaging material of Claim 1 or 2" recited in Claim 3 of the scope of claims to

"a package comprising a packaging material including a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene."

(4) Correction D

Correct "a packaged article comprising the package according to Claim 3 and the contents accommodated therein" recited in Claim 4 of the scope of claims to

"a packaged article comprising: a package including a packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene; and the contents accommodated therein."

(5) Correction E

Correct "a method for producing a packaging material, comprising: sandwich-laminating a base material layer made of biaxially stretched polyethylene terephthalate and a barrier layer made of an aluminum foil with an adhesive resin layer sandwiched therebetween and containing a plant-derived polyolefin resin, wherein the adhesive resin layer further contains the petroleum-derived low-density polyethylene, the plant-derived polyolefin resin is in the range of 5 to 100 parts by mass with respect to 100 parts by mass in total of the plant-derived polyolefin resin and petroleum-derived low-density polyethylene, and the plant-derived polyolefin resin is plant-derived low-density

polyethylene" recited in Claim 5 of the scope of claims to

"a method for producing a packaging material, comprising: sandwich-laminating a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed and a barrier layer made of an aluminum foil with an adhesive resin layer sandwiched therebetween and containing a plant-derived polyolefin resin, wherein the adhesive resin layer is made of only plant-derived polyolefin resin and the plant-derived polyolefin resin is plant-derived low-density polyethylene."

2. Suitability of the correction

(1) Regarding Correction A

A. Regarding the base material stated in Correction A, the correction of "a base material layer made of biaxially stretched polyethylene terephthalate" before the correction to "a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed" is to further limit the base material layer to one "having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed," and thus falls under the restriction of the scope of claims stipulated in Article 120-5(2)(i) of the Patent Act.

Regarding the adhesive resin layer in Correction A, the correction of "comprising ... an adhesive resin layer ... containing a plant-derived polyolefin resin, wherein the adhesive resin layer further includes petroleum-derived low-density polyethylene, the plant-derived polyolefin resin is in the range of 5 to 100 parts by mass with respect to 100 parts by mass in total of the plant-derived polyolefin resin and petroleum-derived low-density polyethylene" to "comprising ... an adhesive resin layer made of only a plant-derived polyolefin resin ..." is to restrict the plant-derived polyolefin resin to one in an amount of 100 parts by mass with respect to 100 parts by mass in total of the plant-derived polyolefin resin, and thus falls under the restriction of the scope of claims stipulated in Article 120-5(2)(i) of the Patent Act.

B. As stated above, Correction A is to restrict the matters specifying the Invention recited in Claim 1 before the correction and does not aim at altering the category, target, or purpose of the Invention. Therefore, Correction A does not substantially enlarge or alter the scope of claims and falls under the provisions of Article 126(6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 120-5(9) of the Patent Act.

C. In paragraphs [0083] to [0087] of the specification, scope of claims, or drawings attached to the application of the Patent (hereinafter, collectively referred to as "the patent

specification"), there is stated an adhesive resin layer made of "only a plant-derived polyolefin resin." In paragraph [0084], there is stated that "... a print layer and an adhesive resin layer were sequentially formed on one main surface of the base material layer. The adhesive layer was formed using A3210 manufactured by Mitsui Takeda Chemical Co., Ltd., which is an anchor-coating agent." Thus, Correction A is made within the scope of the matters stated in the patent specification and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 120-5(9) of the Patent Act.

(2) Regarding Correction B

Correction B is to delete Claim 2, and thus falls under the restriction of the scope of claims stipulated in Article 120-5(2)(i) of the Patent Act.

In addition, Correction B does not involve any substantial change in content and thus does not substantially enlarge or alter the scope of claims. Therefore, Correction B is made within the scope of the matters stated in the patent specification and thus falls under the provisions of Article 126(5) and (6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 120-5(9) of the Patent Act.

(3) Regarding Correction C

Correction C is to correct Claim 3 before the correction, which depends from Claim 1 or 2, to one that does not depend from Claim 2 and then correct the claim, which depends from Claim 1 corrected by Correction A, to an independent claim by dissolving the dependence relationship among them. Correction C falls under the restriction of the scope of claims stipulated in Article 120-5(2)(i) of the Patent Act and the correction of a statement of claims which cites another statement of claims to a statement which does not cite that other statement of claims under the provisions of Article 120-5(2)(iv) of the Patent Act.

Furthermore, as stated as the above (1) for Correction A, Correction C does not substantially enlarge or alter the scope of claims but is made within the scope of the matters stated in the patent specification. Therefore, Correction C falls under the provisions of Article 126(5) and (6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 120-5(9) of the Patent Act.

(4) Regarding Correction D

Correction D is to correct Claim 4 before the correction, which depends from Claim 3 dependent on Claim 1 or 2, to one that does not depend from Claim 2 and then

correct the claim, which depends from Claim 3 dependent on Claim 1 corrected by Correction A, to an independent claim by dissolving the dependence relationship among them. Therefore, Correction D falls under the restriction of the scope of claims stipulated in Article 120-5(2)(i) of the Patent Act and the correction of a statement of claims which cites another statement of claims to a statement which does not cite that other statement of claims under the provisions of Article 120-5(2)(iv) of the Patent Act.

Furthermore, like the one as stated in the above (1) for Correction A, Correction D does not substantially enlarge or alter the scope of claims but is made within the scope of the matters stated in the patent specification. Therefore, Correction C falls under the provisions of Article 126(5) and (6) of the Patent Act which is applied *mutatis mutandis* in the provisions of Article 120-5(9) of the Patent Act.

(5) Regarding Correction E

A. Regarding the base material stated in Correction E, the correction of "a base material layer made of biaxially stretched polyethylene terephthalate" before the correction to "a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed" is to further limit the base material layer to one "having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed," and thus falls under the restriction of the scope of claims stipulated in Article 120-5(2)(i) of the Patent Act.

Regarding the adhesive resin layer in Correction E, the correction of "the adhesive resin layer further includes petroleum-derived low-density polyethylene, the plant-derived polyolefin resin is in the range of 5 to 100 parts by mass with respect to 100 parts by mass in total of the plant-derived polyolefin resin and petroleum-derived low-density polyethylene" to "comprising ... an adhesive resin layer made of only a plant-derived polyolefin resin ..." is to restrict the plant-derived polyolefin resin to one in an amount of 100 parts by mass with respect to 100 parts by mass in total of the plant-derived polyolefin resin, and thus falls under the restriction of the scope of claims stipulated in Article 120-5(2)(i) of the Patent Act.

B. As stated above, Correction E is to restrict the matters specifying the Invention recited in Claim 5 before the correction and does not aim at altering the category, target, or purpose of the Invention. Therefore, Correction E does not substantially enlarge or alter the scope of claims and falls under the provisions of Article 126(6) of the Patent Act which is applied *mutatis mutandis* in the provisions of Article 120-5(9) of the Patent Act.

C. In paragraphs [0083] to [0087] of the patent specification, there is stated an adhesive

resin layer made of "only a plant-derived polyolefin resin." In paragraph [0084], it is stated that "... a print layer and an adhesive layer were sequentially formed on one main surface of the base material layer. The adhesive layer was formed using A3210 manufactured by Mitsui Takeda Chemical Co., Ltd., which is an anchor-coating agent." Thus, Correction E is made within the scope of the matters stated in the patent specification and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 120-5(9) of the Patent Act.

(6) Regarding groups of claims and request for providing a group of claims as another correction unit

Claims 3 and 4 before the correction depend from Claim 1 before the correction. When Corrections C and D for the purpose of dissolving the dependence relationship are acknowledged and then the correction is acknowledged, Claims 3 and 4 after the correction are required to be treated as correction units other than Claim 1. Thus, the corrections for Claims 1 to 4 in Corrections 1 to 4 are made in the respective groups of claims as stipulated in Article 120-5(4) of the Patent Act. And Claims 3 and 4 after the correction should be regarded as other correction units than the unit of Claim 1.

3. Summary of corrections

As stated above, the corrections according to the Correction Request intend to the matters listed in the matters listed in item (i) and item (iv) of the proviso to Article 120-5(2) of the Patent Act and fall under the provisions of Article 126(5) and (6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 120-5(4) and (9) of the Patent Act. Therefore, the corrections to Claims [1, 2], 3, 4, and 5 after the correction shall be approved.

No. 3 Patent Invention

As stated as above, the Correction Request shall be approved. Thus, the inventions recited in Claims 1 to 5 (hereinafter, respectively referred to as "Patent Invention 1" and so on) are respectively recognized to be as specified by the matters stated in Claims 1 to 5 in the scope of claims attached to the Written Correction Request and disclosed as follows:

"[Claim 1]

A packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum

foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene.

[Claim 2]

(Deleted)

[Claim 3]

A package comprising a packaging material including a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene.

[Claim 4]

A packaged article comprising: a package including a packaging material including a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene; and the contents accommodated therein.

[Claim 5]

A method for producing a packaging material, comprising: sandwich-laminating a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed and a barrier layer made of an aluminum foil with an adhesive resin layer sandwiched therebetween and containing a plant-derived polyolefin resin, wherein the adhesive resin layer is made of only plant-derived polyolefin resin and the plant-derived polyolefin resin is plant-derived low-density polyethylene."

No. 4 Outline of reasons for revocation

The outline of reasons for revocation (advance notice of decision) of Patent Inventions 1 and 3 to 5 notified by the body on January 31, 2019 is as follows.

Reason 1) Patent Inventions 1 and 3 to 5 of the Patent could have been easily made by a person having ordinary skill in the art to which the inventions pertain, on the basis of the invention stated in Cited Document 6 that had been distributed in Japan or a foreign

country before the application of the Patent. Therefore, the applicant should not be granted a patent for the Invention under the provisions of Article 29(2) of the Patent Act. Reason 2) Patent Inventions 1 and 3 to 5 of the Patent are identical to those stated in the specification, the scope of claims, or drawings originally attached to the application of Patent Application 1 or Patent Application 2, which was filed before and published after the application of the Patent. Moreover, the inventor of the Patent is not the same as the person who made the above invention related to the patent application before the application, and, at the time of filing the Patent, the applicant is not the same as the applicant of the above patent application. Therefore, the applicant should not be granted a patent for the Invention under the provisions of Article 29-2 of the Patent Act.

<List of publications>

Cited Document 1: Japanese Unexamined Patent Application Publication No. 2001-179891 (Evidence A No. 1 submitted by Patent Opponent 1)

Cited Document. 2: Japanese Unexamined Patent Application Publication No. 2004-160824 (Evidence A No. 2 submitted by Patent Opponent 1)

Cited Document. 3: Japanese Unexamined Patent Application Publication No. 2010-76795 (Evidence A No. 3 submitted by Patent Opponent 1)

Cited Document. 4: Japanese Unexamined Patent Application Publication No. 2015-205719 (Evidence A No. 4 submitted by Patent Opponent 1)

Cited Document. 5: Japanese Unexamined Patent Application Publication No. 2011-148197 (Reference Material 1 submitted by Patent Opponent 2)

Cited Document. 6: Japanese Unexamined Patent Application Publication No. 2016-22668 (Reference Material 2 submitted by Patent Opponent 2)

Cited Document. 7: Japanese Unexamined Patent Application Publication No. 2015-91655 (Reference Material 3 submitted by Patent Opponent 2)

Patent Application 1: Japanese Patent Application No. 2016-13189 (Japanese Unexamined Patent Application Publication No. 2018-1612, Evidence A No. 1 submitted by Patent Opponent 2)

Technical information material: "Information material of Toyobo Ester ○R Film (PET Film) E5100 (note by the body: '○R' represents a circled letter R)" [Online], Toyobo Ester Co., Ltd., Packaging Business Division, March 10, 2010, Internet <URL:http://www.toyobo.co.jp/seihin/film/package/pdf/ester_espet/E5100.pdf> (Evidence A No. 2 submitted by Patent Opponent 2)

Patent Application 2: Japanese Patent Application No. 2016-187127 (Japanese Unexamined Patent Application Publication No. 2018-51790, submitted by Evidence A

No. 3)

No. 5 Judgment by the body

1. Judgment for Reason 2 (Article 29-2 of the Patent Act) based on Patent Application 1
(1) Prior Invention

A. The specification, the scope of claims, or drawings originally attached to the application of Patent Application 1 (hereinafter, referred to as "Prior specification A") include the following statements:

(A) "[Scope of Claims]

[Claim 1]

A laminated body comprising at least a base material layer, a polyolefin resin layer, and a thermoplastic resin layer in this order, wherein

the polyolefin resin layer includes a biomass polyolefin that is a polymer of monomers containing ethylene derived from a biomass, and

the polyolefin resin layer has a biomass degree of 5% or more."

(B) "[Technical Field]

[0001]

The present invention relates to a laminated body comprising a polyolefin resin layer containing biomass polyolefin, and more particularly to a laminated body comprising at least a base material layer, a polyolefin resin layer containing biomass polyolefin that is a polymer of monomers containing biomass-derived ethylene, and a thermoplastic resin layer. Furthermore, the present invention relates to a packaged article and a flexible package including the laminated body."

(C) "[Problem to be Solved by the Invention]

[0007]

The inventors focused on ethylene, which is a raw material for polyolefin resin and found that a laminated body could be obtained, the laminated body comprising a polyolefin resin layer including biomass polyolefin (hereinafter sometimes simply referred to as "biomass polyolefin") using a biomass-derived ethylene as its raw material instead of ethylene from conventional fossil fuels. It is found that such a laminate body is comparable to a laminated body comprising a polyolefin resin layer made of polyolefin (hereinafter, simply referred to as "fossil fuel-derived polyolefin") manufactured using ethylene obtained from conventional fossil fuel in terms of physical properties such as mechanical properties. The Invention is based on such a finding.

[0008]

Accordingly, an object of the present invention is to provide a laminated body

comprising a polyolefin resin layer containing biomass polyolefin, which is comparable to a laminated body comprising a polyolefin resin layer made of fossil fuel-derived polyolefin in terms of physical properties such as mechanical properties."

(D) "[0021]

<Laminated body>

A laminated body according to the present invention includes a base material layer, a polyolefin resin layer containing a biomass polyolefin, and a thermoplastic resin layer in this order. Hereinafter, the expression "thermoplastic resin layer" refers to a first thermoplastic resin layer. The laminated body is provided with a polyolefin resin layer containing biomass polyolefin, so that the amount of fossil fuel used can be reduced and the environmental load can be reduced as compared with the conventional case. In addition, the laminated body according to the present invention is comparable to a conventional laminated body of polyolefin resin manufactured from fossil-fuel in terms of physical properties such as mechanical properties and thus can substitute for the conventional laminated body of polyolefin resin.

[0022]

In addition to the above layers, the laminated body according to the present invention may further include at least one other layer, such as a print layer, a barrier layer, a plastic film, an adhesive layer, or a second thermoplastic resin layer. When two or more other layers are included, the compositions of the layers may be the same or different from each other.

[0023]

The laminated body according to the present invention will be described with reference to the drawings. FIGS. 1 to 3 illustrate exemplified schematic sectional views of the laminated body according to the present invention.

....

A laminated body 20 shown in FIG. 2 includes: a base material layer 11; and a polyolefin resin layer 12, a barrier layer 14, and a thermoplastic resin layer 13 in this order on one surface of the base material layer 11. In the case of a soft package having the laminated body 20, the thermoplastic resin layer 13 is located inside the soft package.

...."

(E) "[0024]

(Base material layer)

In the present invention, the base material layer functions as a base material layer that holds the polyolefin resin layer, and is preferably one capable of providing the laminated body with a strength as a packaged product. The base material layer may be

prepared using a resin base material, preferably a polyester such as polyethylene terephthalate, a polyolefin such as polyethylene or polypropylene, or a polyamide such as nylon. These materials may be used alone or in combination of two or more."

(F) "[0034]

(Polyolefin resin layer)

In the present invention, the polyolefin resin layer contains biomass polyolefin, which is a polymer of monomers including biomass-derived ethylene. The polymer may further include a fossil fuel-derived polyolefin. The polyolefin resin layer may contain 5% by mass or more and 100% by mass or less of the biomass polyolefin and 0% by mass or more and 95% by mass or less of the fossil fuel-derived polyolefin based on the entire polyolefin resin layer. The following biomass degree should be attained as the whole polyolefin resin layer. In the present invention, when the polyolefin resin layer contains biomass polyolefin, the amount of fossil fuel-derived polyolefin can be reduced to cause a reduction in the environmental load as compared with the conventional case.

[0039]

The polyolefin resin layer has a thickness of 5 μm or more to 100 μm or less, preferably 10 μm or more to 60 μm or less, more preferably 15 μm or more to 40 μm or less. When the thickness of the polyolefin resin layer is in the above range, the function of bonding the two layers can be sufficiently achieved.

....

[0047]

In the present invention, examples of biomass polyolefin suitably used include biomass-derived low-density polyethylene manufactured by Braskem Co., Ltd. (trade name: SBC818, density: 0.918 g/cm³, MFR: 8.1 g/10 min, and biomass degree: 95%) and low-density polyethylene derived from biomass manufactured by Braskem Co., Ltd. (trade name: SPB681, density: 0.922 g/cm³, MFR: 3.8 g/10 min, and biomass degree: 95%)."

(G) "[0075]

(Print layer)

The print layer is a layer on which desired print patterns, such as letters, numbers, pictures, figures, symbols, and design, are formed for an aesthetic sense and display, such as decoration, display of contents, display of best-before period, display of manufacturers, sellers, and so on. The print layer can be provided as necessary, for example, in the base material layer. The print layer may be entirely or partially provided on the surface of the base material layer. The print layer can be formed using a conventionally known

pigment or dye, and the formation method is not particularly limited."

(H) "[0076]

(Barrier layer)

The barrier layer is made of an inorganic material and/or an inorganic oxide, and is preferably made of a vapor-deposited film of an inorganic material or an inorganic oxide or made of a metal foil.

[0081]

According to another aspect, the barrier layer may be a metal foil obtained by rolling metal. A conventionally known metal foil can be used as the metal foil. An aluminum foil is preferred from the viewpoints of gas barrier properties that block the transmission of oxygen gas, water vapor, and the like and light shielding properties that block the transmission of visible light, ultraviolet light, and the like."

(I) "[0084]

(Adhesive layer)

....

[0085]

Further, the adhesive layer may be an anchor-coating layer, which can be formed by applying an anchor-coating agent to the surface of the layer to be laminated and drying the agent when laminating a polyolefin resin layer, thermoplastic resin layer, or the like by a melt extrusion lamination method.

[0086]

Furthermore, the adhesive layer may be an adhesive resin layer, which can be used when two layers are bonded by a sand-laminating method or used in a melt extrusion lamination method. "

(J) "[0091]

(Intended-end use)

The laminated body according to the present invention can be used in packaged articles. The packaged articles are preferably used for soft packaging of packaging bags, laminated tubes, lids, and the like. Examples of packaging bags may include, for example, those in various forms, such as a standing pouch type, side seal type, two-side seal type, three-side seal type, four-side seal type, envelope-attached seal type, joint-attached seal type (pillow seal type), pleated seal type, flat-bottom seal type, square bottom seal type, and gusset type. In this case, the thickness of the laminated body may be appropriately determined depending on the intended-end use, and, for example, used in the form of a film having a thickness of 30 μm or more to 300 μm or less, preferably 35 μm or more to 180 μm or less."

(K) "[0100]

[Example 3]

<Preparation of laminated body 4>

A fossil fuel-derived polyethylene terephthalate film (manufactured by Toyobo Co., Ltd.: E5100, thickness 12 μm) was prepared as a base material layer. A corona-treated surface of the film was then coated with a two-component curable anchor-coating agent (manufactured by Mitsui Chemicals Co., Ltd.: A3210 / A3075) to form an anchor-coating layer. Subsequently, an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness 7 μm) was pasted on the anchor-coating layer via the polyolefin resin layer (biomass degree: 95%, thickness 15 μm) using a sand-laminating method while being subjected to extrusion of biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10$ min, biomass degree: 95%). Subsequently, a two-component curable anchor-coating agent (manufactured by Mitsui Chemicals Co., Ltd.: A3210/A3075) was coated on the aluminum foil to form an anchor-coating layer. Subsequently, a fossil fuel-derived low-density polyethylene (manufactured by Japan polyethylene Corporation, LC600A, density: 0.918 g/cm^3 , MFR: 7.0 $\text{g}/10$ min, biomass degree: 0%) was melt-extruded and laminated on the anchor-coating layer at a resin temperature of 320°C and a line speed of 100 m/min to form a thermoplastic resin layer (biomass degree: 0%, thickness 30 μm). Consequently, a laminated body 4 in which a base material layer, an anchor-coating layer, a polyolefin resin layer, a barrier layer, an anchor-coating layer, and a thermoplastic resin layer were sequentially laminated was obtained."

(L) "[0109]

[Production Examples 1 to 11]

<Production of packaging bag>

A standing pouch was formed by the following steps by combining the laminated body (side sheet) for the trunk member and the laminated body (bottom sheet) for the bottom member described in Table 1 below. Specifically, the two side sheets were overlapped such that the side sheets face each other to make the thermoplastic resin layer the innermost layer. At the same time, the bottom sheet was inserted between the two side sheets, and the side sheets and the bottom sheet were heat-sealed to each other, thereby producing standing pouches 1 to 11 configured as shown in FIG. 4.

[0110]

(Liquid leak test)

Standing pouches 1 to 11 prepared above were filled with a test solution (Ageless Seal Check (manufactured by Mitsubishi Gas Chemical Co., Ltd.)) and stored at room

temperature and humidity for 1 hour, followed by being subjected to a visual evaluation of liquid-leakage according to the following evaluation criteria."

B. The above statement (J) states that the "laminated body" stated in Prior Specification A is recognized as one used in a packaging product. The above statement (G) states that a print layer can be formed on the base material layer of the laminated body. Furthermore, the above statement (K) states that the following "Prior Invention A1" is disclosed in Prior Specification A as follows:

"A laminated body used in a packaging product, wherein a two-component curable anchor-coating agent (manufactured by Mitsui Chemicals Co., Ltd.: A3210/A3075) is coated on a base material layer made of a fossil fuel-derived polyethylene terephthalate film (manufactured by Toyobo Co., Ltd.: E5100, thickness 12 μm) to form an anchor-coating layer; a biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10 \text{ min}$, biomass degree: 95%) is extruded on the anchor-coating layer, an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness 7 μm) is bonded through the polyolefin resin layer (biomass degree: 95%, thickness 15 μm), and a print layer is formed on the base material layer."

C. Prior Specification A also discloses the invention of "a packaging product using a laminated body of Prior Invention A1" (hereinafter, referred to as "Prior Invention A3").

D. The statement (K) of Prior Specification A also states that a laminated body is used to form a standing pouch as a packaging product and filled with a test solution as a content thereof. Therefore, Prior Specification A also describes the invention of "an article comprising a packaging product using the laminated body of Prior Invention A1 and the contents contained therein" (hereinafter referred to as "Prior Invention A4").

E. Regarding a method for producing a laminated body used in a packaging product, Prior Specification A discloses "Prior Invention A5" as follows:

"A method of producing a laminated body used in a packaging product, wherein a fossil fuel-derived polyethylene terephthalate film (manufactured by Toyobo Co., Ltd.: E5100, thickness 12 μm) is prepared as a base material layer, a two-component curable anchor-coating agent (manufactured by Mitsui Chemicals Co., Ltd.: A3210/ A3075) is coated on the corona-treated surface to form an anchor-coating layer, and subsequently, an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness 7 μm) is pasted on the anchor-coating layer via the polyolefin resin layer (biomass degree: 95%, thickness 15 μm) using a sand-laminating method while being subjected to extrusion of biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818,

density: 0.918 g/cm³, MFR: 8.1 g/10 min, biomass degree: 95%), followed by bonding of an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness 7 μm) is bonded through the polyolefin resin layer (biomass degree: 95%, thickness 15 μm), and a print layer is formed on the base material layer."

(2) Regarding Patent Invention 1

A. Patent Invention 1 is compared with Prior Invention A1.

As stated in the above technical information material ("Toyobo Ester ○R (note by the body: '○R' represents a circled letter R) Film (PET Film) E5100; Toyobo Ester ○R film is a biaxially oriented film made mainly of polyethylene terephthalate (PET)", which is Evidence A No. 2 submitted by the Patent Opponent 2), at the time of filing Patent Application 1, the "fossil fuel-derived polyethylene terephthalate film (manufactured by Toyobo Co., Ltd.: E5100, thickness 12 μm)" stated in Prior Invention A1 had been well-known as a biaxially oriented film. Thus, the matter disclosed in Prior Invention A1 in which "a two-component curable anchor-coating agent (manufactured by Mitsui Chemicals Co., Ltd.: A3210/A3075) was coated" on "a fossil fuel-derived polyethylene terephthalate film (manufactured by Toyobo Co., Ltd.: E5100, thickness 12 μm)" "to form an anchor-coating layer" and "a print layer is formed on the base material layer" is coincident with the matter disclosed in Patent Invention 1 in which "base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed" in terms of "a base material layer made of biaxially stretched polyethylene terephthalate and having a print layer and an anchor-coating agent layer."

In addition, the "aluminum foil" in Prior Invention A1 corresponds to the "barrier layer made of an aluminum foil" in Patent Invention 1. The "polyolefin resin layer" made of "biomass-derived low-density polyethylene(manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm³, MFR: 8.1 g/10 min, biomass degree: 95%)" in Prior Invention A1 is disposed between the "base material layer" and the "aluminum foil" and functions to bond the two layers (Prior Specification A, paragraph [0039]). Thus, the "aluminum foil" in Prior Invention A1 corresponds to "an adhesive resin layer" made of "a plant-derived low-density polyethylene," which is made of only a plant-derived polyolefin resin," interposed between "a base material layer made of biaxially stretched polyethylene terephthalate" and "a barrier layer made of an aluminum foil".

Furthermore, the "laminated body" stated in Prior Invention A1 is a package material to be used for a packaging product (stated in the above statement (J)) for "packaging bags, laminated tubes, lids, and the like" and corresponds to the "packaging

material" of Patent Invention 1.

B. Then, Patent Invention 1 and Prior Invention A1 correspond to each other in specifying "a packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate and having a print layer and an anchor-coating agent layer, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene" and differ from each other in the following points.

<Different Feature A1>

In Patent Invention 1, the "base material layer" is one "having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed." In Prior Invention A1, in contrast, it is unknown whether a print layer and an anchor-coating layer are sequentially disposed on one main surface of a base material layer even though the base material layer includes a print layer and an anchor-coating layer.

C. The above Different Feature 1 will be examined.

In the laminated body of Prior Invention A1, the base material layer includes a print layer and an anchor-coating layer, and a polyolefin resin layer is laminated through the anchor-coating layer. The anchor-coating layer is disposed on the base surface in order to increase the bonding strength between the base layer and another layer when another layer, such as an adhesive layer, is laminated on the base, such as the base material layer. From such matters, it is recognized that the anchor-coating layer is disposed in contact with the polyolefin resin layer corresponding to the adhesive layer and it is also recognized that the print layer is disposed at a position between the base material layer and the anchor-coating layer or is disposed at a position on the surface side opposite to the surface on which the anchor-coating layer of the base material layer is disposed.

Selecting one of these arrangement positions is a matter determined in consideration of mechanical characteristics, such as the lamination strength of the laminated body and the appearance of the print layer. It is a well-known matter of art that the print layer is disposed between the base material layer and the anchor-coating layer and that the print layer and the anchor-coating layer are disposed in this order on one side of the base material layer as shown in the following Cited Documents. 5 to 7.

- Cited Document 5: Japanese Unexamined Patent Application Publication No. 2011-148197

"[0037]

(Example 1) A biaxially stretched PET film having a thickness of 12 μm was used as a base material 11 and subjected to gravure printing using green ink (manufactured by DIC

Graphics, urethane-based 'CLIOS' green ink) and silver ink (manufactured by DIC Graphics, urethane-based 'CLIOS' silver ink) to overprint on an area of 2 cm x 4 cm, forming a green ink layer (colored ink layer 13) and a silver ink layer (silver ink layer 14).

A polyethyleneimine anchor-coating agent was applied to the surface of the silver ink layer 14 and dried. Then, 15 μm of LDPE serving as a first polyolefin resin layer 15 was melt-extruded and laminated together with an aluminum foil having a thickness of 9 μm serving as a metal layer 17 by a so-called poly-sand method. "

- Cited Document 6: Japanese Unexamined Patent Application Publication No. 2016-22668

"[0032]

Next, as shown in FIG. 2(b), an anchor-coating agent was applied to the surface of the film base material 1 on which the printing ink layer 2 was formed by a printing method, and dried to form an anchor-coating layer 3.

[0033]

Next, as shown in FIG. 2(c), a first adhesive resin layer 4 made of a thermoplastic resin was extruded from a T-die into between the anchor-coating layer 3 and the aluminum base material 5 to laminate them. "

- Cited Document 7: Japanese Unexamined Patent Application Publication No. 2015-91655

"[0028]

[Example 1]

A 20- μm thick biaxially stretched polypropylene film (OPP) subjected to a single-sided corona treatment was prepared as a transparent base material layer 10; a 12- μm thick biaxially stretched polyethylene terephthalate film (VMPET) having a 40-nm thick aluminum vapor deposition layer on one side thereof was prepared as a vapor deposition film layer 12; an ethylene-methacrylic acid copolymer (EMAA) was prepared as a thermoplastic resin layer 11; a low-density polyethylene (LDPE) was prepared as an adhesive layer 15; and a 20- μm thick non-stretched polypropylene film (CPP) subjected to a single-sided corona treatment was prepared as a thermal adhesive resin layer 13.

....

[0030]

[Example 2]

A 12- μm thick biaxially stretched polyethylene terephthalate film (PET) was used instead of the laminated body OPP of Example 1. In addition a 7- μm thick aluminum foil (AL) was used instead of VMPET. As a result, a laminated body 1' as shown in FIG. 5 having a configuration of <12- μm PET / print layer / AC / 20- μm EMAA / 7- μm AL /

AC / 15- μ m LDPE / 20- μ m CPP> was obtained."

D. Regarding the "base material layer" in Patent Invention 1 "on which a print layer and an anchor-coating agent layer are sequentially formed," the patent specification states as follows: "A print layer may be further provided on the main surface of the base material layer 11. The print layer may be provided on the adhesive surface with the adhesive resin layer 12 in the main surface of the base material layer 11 or on the back surface thereof." (paragraph [0015]); "First, the base material layer 11 and the barrier layer 13 are prepared, and an anchor-coating agent is applied to one main surface of the base material layer 11 to form an adhesive layer." (paragraph [0069]); and "The print layer and the adhesive layer were sequentially formed in one main surface of this base material layer. The adhesive layer was formed using A3210 manufactured by Mitsui Takeda Chemical Co., Ltd., which is an anchor-coating agent." (paragraph [0084]). However, there is no specific statement about an effect being achieved by the configuration of the "base material layer" "on which a print layer and an anchor-coating agent layer are sequentially formed."

The base material layer of Prior Invention A1 also has a print layer and an anchor-coating layer and thus exerts an effect due to having these layers. Thus, the difference according to Different Feature A1 indicates that Patent Invention 1 does not have a new effect.

Then, the difference according to Different Feature A1 is merely related to addition to a well-known technique, and does not produce a new effect. Therefore, it is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

E. In this regard, in the written opinion dated on March 25, 2019, the patentee alleges that the difference between Patent Invention 1 and the invention of the prior application is not a slight difference in concrete means for solving the problem, because Patent Invention 1 exerts effects of exhibiting high laminate strength and maintaining high laminate strength, thereby exerting new effects not found in the prior invention.

However, as stated in the above (1(2)B), Different Feature A1 between Patent Invention 1 and Prior Invention A1 is the "base material layer" "on which a print layer and an anchor-coating agent layer are sequentially formed." The patent specification does not state whether or not the configuration of Different Feature A1 is provided affects an improvement in laminate strength and maintenance of the strength over time. The above allegation of the patentee is not based on the statements in the patent specification, and cannot be right and proper.

F. Thus, Patent Invention 1 is substantially identical to Prior Invention A1.

(3) Regarding Patent Invention 3

In comparison of Patent Invention 3 with Prior Invention A3, they are common in the point of:

"a package comprising a packaging material including a base material layer made of biaxially stretched polyethylene terephthalate and having a print layer and an anchor-coating agent layer, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene", while they differ in the following Different Feature A3.

<Different Feature A3>

In Patent Invention 3, the "base material layer" is one "having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed." In Prior Invention A3, in contrast, it is unknown whether a print layer and an anchor-coating layer are sequentially disposed on one main surface of a base material layer even though the base material layer includes a print layer and an anchor-coating layer.

However, for the same reason as stated in the above 1(2), the difference according to the above Different Feature A3 is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

Thus, Patent Invention 3 is substantially identical to Prior Invention A3.

(4) Regarding Patent Invention 4

In comparison of Patent Invention 4 with Prior Invention A4, they are common in the point of:

"A packaged article comprising: a package including a packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene; and the contents accommodated therein" while they differ in the following Different Feature A4.

<Different Feature A4>

In Patent Invention 4, the "base material layer" is one "having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed." In

Prior Invention A4, in contrast, it is unknown whether a print layer and an anchor-coating layer are sequentially disposed on one main surface of a base material layer even though the base material layer includes a print layer and an anchor-coating layer.

However, for the same reason as stated in the above 1(2), the difference according to the above Different Feature A4 is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

Thus, Patent Invention 4 is substantially identical to Prior Invention A4.

(5) Regarding Patent Invention 5

Patent Invention 5 is compared with Prior Invention A5.

As stated in the above Technical information material (Evidence A No. 2 submitted by Patent Opponent 2), at the time of filing Patent Application 1, "a fossil fuel-derived polyethylene terephthalate film (manufactured by Toyobo Co., Ltd.: E5100, thickness 12 μm)" stated in Prior Invention A5 had been well-known as a biaxially oriented film. The matter disclosed in Prior Invention A5 in which "a two-component curable anchor-coating agent (manufactured by Mitsui Chemicals Co., Ltd.: A3210/A3075) was coated" on "a fossil fuel-derived polyethylene terephthalate film (manufactured by Toyobo Co., Ltd. : E5100, thickness 12 μm)" "to form an anchor-coating layer" and "a print layer is formed on the base material layer" is coincident with the matter disclosed in Patent Invention 5 in which "a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed" in terms of "a base material layer made of biaxially stretched polyethylene terephthalate and having a print layer and an anchor-coating agent layer." The "aluminum foil" of Prior Invention A5 corresponds to the "barrier layer made of an aluminum foil" of Present Invention 5.

The "polyolefin resin layer" of Prior Invention A5 made of a "biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10 \text{ min}$, biomass degree: 95)" is disposed between the "base material layer" and the "aluminum foil," followed by "bonding" between the "base material layer" and the "aluminum foil," corresponding to the "adhesive resin layer" made of "plant-derived low-density polyethylene" made of "only plant-derived polyolefin resin" of Patent Invention 5. Subsequently, on the base material layer of Prior Invention A5, "an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness 7 μm) is pasted via the polyolefin resin layer (biomass degree: 95%, thickness 15 μm) using a sand-laminating method while being subjected to extrusion of biomass-derived low-

density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm³, MFR: 8.1 g/10 min, biomass degree: 95%)" corresponds to the matter of Patent Invention 5 that "sandwich-laminating a base material layer made of biaxially stretched polyethylene terephthalate and a barrier layer made of an aluminum foil" with "an adhesive resin layer sandwiched therebetween and containing plant-derived polyolefin resin."

The "laminated body" of Prior Invention A5 is a packaging material to be used for a packaged article of "packaging bags, laminated tubes, lids, and the like" (the above statement (J)) and corresponds to the "packaging material" of Patent Invention 5.

B. Then, Patent Invention 5 and Prior Invention A5 are common in the point of:

"A method for producing a packaging material, comprising: sandwich-laminating a base material layer made of biaxially stretched polyethylene terephthalate and on which a print layer and an anchor-coating agent layer are formed and a barrier layer made of an aluminum foil with an adhesive resin layer sandwiched therebetween and containing a plant-derived polyolefin resin, wherein the adhesive resin layer is made of only plant-derived polyolefin resin, the plant-derived polyolefin resin is plant-derived low-density polyethylene", while they differ in the following Different Feature A5.

<Different Feature 5>

The "base material layer" of Patent Invention 5 has "one main surface on which a print layer and an anchor-coating agent layer are sequentially formed." In Prior Invention A5, in contrast, it is unknown whether a print layer and an anchor-coating layer are sequentially formed on one main surface of a base material layer even though a print layer and an anchor-coating layer are formed on the base material layer.

C. However, for the same reason as stated in the above 1(2), the difference according to the above Different Feature A5 is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

Thus, Patent Invention 5 is substantially identical to Prior Invention A5.

(6) Summary of Reason 2 based on Patent Application 1

Since Patent Inventions 1 and 3 to 5 are substantially identical to Prior Inventions A1 and A3 to A5, respectively, the applicant should not be granted a patent for each of Patent Inventions 1 and 3 to 5 under the provisions of Article 29-2 of the Patent Act.

2. Judgment for Reason 2 (Article 29-2 of the Patent Act) based on Patent Application 2

(1) Prior Invention

A. The specification, the scope of claims, or drawings originally attached to the application of Patent Application 2 (hereinafter, referred to as "Prior specification B") include the following statements:

(A) "[Scope of Claims]

[Claim 1]

A laminated body in which at least a base material layer, a print layer, an adhesive layer, and a sealant layer are sequentially laminated, wherein

the print layer includes a colorant, a cured product of a polyol and an isocyanate compound, at least one of the polyol and isocyanate compound includes a biomass-derived component, and the adhesive layer includes biomass polyolefin that is a polymer of ethylene-containing monomers derived from biomass."

(B) "[Technical Field]

[0001]

The present invention relates to a laminated body in which at least a base material layer, a print layer, an adhesive layer, and a sealant layer are sequentially laminated, and more specifically to a laminated body in which at least one of the base material layer and the sealant layer includes a biomass-derived component and at least one of the print layer and the adhesive layer includes a biomass-derived component. The present invention further relates to a packaging product including such a laminated body."

(C) "[Problem to be Solved by the Invention]

[0008]

Conventionally, in a laminated body in which a base material layer, a print layer, an adhesive layer, and a sealant layer are sequentially laminated, the print layer is made of fossil fuel-derived material. However, such a material is a cause of reducing the biomass degree of the entire laminated body. In a laminated body in which a base material layer, a print layer, an adhesive layer, and a sealant layer are sequentially laminated, a further increase in biomass degree of the entire laminated body has been desired.

[0009]

The present inventors have found that, in a laminated body in which at least a base material layer, a print layer, an adhesive layer, and a sealant layer are sequentially laminated, the biomass degree of the entire laminated body can be further increased by forming both the print layer and the adhesive layer from materials containing biomass-derived components. The present invention is based on such a finding.

[0010]

Therefore, an object of the present invention is to provide a laminated body in

which a base material layer, a print layer, an adhesive layer, and a sealant layer are sequentially laminated, and the laminated body has a higher biomass degree."

(D) "[0022]

<Laminated body>

A laminated body according to the present invention is one in which a base material layer, a print layer, an adhesive layer, and a sealant layer are sequentially laminated.

[0026]

The laminated body according to the present invention will be described with reference to the drawings. An example of a schematic sectional view of a laminated body according to the present invention is shown in FIGS. 1 and 2.

....

The laminated body 20 shown in FIG. 2 includes a base material layer 11, a print layer 12, an adhesive layer 13, a barrier layer 15, a second base material layer 16, an adhesive layer 13, and a sealant layer 14 in this order.

(E) "[0027]

[Base material layer]

The base material layer is a plastic film.

[0038]

The base material layer is preferably biaxially stretched. Biaxially stretching can be performed by a conventionally known method.

[0042]

When the base material layer is formed from a material that does not contain any biomass-derived component, any of plastic films, for example polyethylene terephthalate films, film of polyesters including polyethylene terephthalate can be used."

(F) "[0044]

[Print layer]

The print layer is a layer for forming a desired arbitrary print pattern such as a character, a numeral, a picture, a figure, a symbol, or a pattern to provide an aesthetic sense and display, such as decoration, display of contents, display of expiration date, and display of a manufacturer, seller, and the like."

(G) "[0057]

[Adhesive layer]

The adhesive layer is a layer that functions to bond any two layers constituting a laminated body, for example, a print layer and a sealant layer. The adhesive layer can be formed using biomass polyolefin, which is a polymer of monomers including biomass-

derived ethylene.

[0058]

Biomass polyolefin is a polymer of monomers including olefins, such as biomass-derived ethylene. A biomass-derived olefin is used as a raw material monomer. Therefore, the polymerized polyolefin is derived from biomass.

....

[0067]

In the present invention, preferably used biomass polyolefins include biomass-derived low-density polyethylene manufactured by Braskem Co., Ltd. (trade name: SBC818, density: 0.918 g/cm³, MFR: 8.1 g/10 min, biomass degree 95%), biomass-derived low-density polyethylene manufactured by Braskem Co., Ltd. (trade name: SPB681, density: 0.922 g/cm³, MFR: 3.8 g/10 min, biomass degree 95%), and biomass-derived linear low-density polyethylene manufactured by Braskem Co., Ltd. (trade name: SLL118, density: 0.916 g/cm³, MFR: 1.0 g/10 min, biomass degree 87%).

[0068]

Preferably, the adhesive layer has a biomass degree of 10% or more, more preferably 50% or more, and still more preferably 80% or more and 100% or less. When the biomass degree is in the above range, the amount of fossil fuel used can be reduced to cause a decrease in environmental load."

(H) "[0076]

[Barrier layer]

The laminated body according to the present invention may further include a barrier layer. The barrier layer is made of an inorganic substance and/or an inorganic oxide, and is preferably made of a deposited film of an inorganic substance or an inorganic oxide or a metal foil.

[0081]

According to another aspect, the barrier layer may be a metal foil obtained by rolling metal. As the metal foil, a conventionally known metal foil can be used. An aluminum foil is preferred from the viewpoint of gas barrier properties that prevent the transmission of oxygen gas, water vapor, and the like and light-blocking properties that prevent the transmission of visible light and ultraviolet light."

(I) "[0090]

<Intended-end use>

The laminated body according to the present invention can be used for a packaging product. Examples of the packaging product include a packaging bag, a laminated tube, a lid, a sheet molded product, and a label material."

(j) "[0092]

[Example 1]

<Production of laminated body 1>

As a base material layer, a biaxially stretched polyester film 1 formed using fossil fuel-derived terephthalic acid and biomass-derived ethylene glycol (biomass degree: 20%, manufactured by Toyobo Co., Ltd., DE035, thickness 12 μm) was prepared. "

(k) "[0094]

[Example 2]

<Preparation of laminated body 3>

As a base material layer, a print layer (biomass degree 25%, weight after drying 2 g/m^2) was formed on a polyester film 1 (biomass degree: 20%, thickness 12 μm) using a biomass-derived ink, which includes polyester polyol containing a biomass-derived component as main agent and a fossil fuel-derived polyisocyanate as a curing agent, to which a coloring agent (titanium oxide) is further added. Subsequently, using a sand-laminating method, an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness of 7 μm) was bonded on the print layer through the adhesive layer (95% biomass, 13 μm thickness) while extruding biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10$ min, biomass degree: 95%). Subsequently, using a sand-laminating method, a biomass-derived linear low-density polyethylene film (biomass degree 16%, thickness 50 μm) was bonded on the aluminum foil through the adhesive layer (95% biomass, 13 μm thickness) while extruding biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10$ min, biomass degree: 95%). Consequently, a laminated body 3 in which a base material layer, a print layer, an adhesive layer, a barrier layer, a second adhesive layer, and a sealant layer were sequentially laminated, was obtained."

B. In view of the above statement, Prior Specification B states the following "Prior Invention B1" for a laminated body used in a packaging product.

"A laminated body used in a packaging product, produced by forming a print layer (biomass degree 25%, weight after drying 2 g/m^2) on a base material layer made of a biaxially stretched polyester film 1 formed using fossil fuel-derived terephthalic acid and biomass-derived ethylene glycol (biomass degree: 20%, thickness 12 μm) using a biomass-derived ink; and extruding biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10$ min, biomass degree: 95%) on the print layer; and bonding an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness 7 μm) through the adhesive layer (biomass

degree 95%, thickness 13 μm)."

C. In addition, Prior Specification B discloses the invention of "a packaging product using a laminated body of Prior Invention B1" (hereinafter, referred to as "Prior Invention B3").

D. Furthermore, Prior Specification B (paragraph [0090]) states that the packaging product of the above Prior Invention B3 is used for packaging bags, laminated tubes, and the like. Such packaging bags or laminated tubes are generally distributed as articles containing the contents. Therefore, it can be said that the invention of "a packaging product using the laminated body of Prior Invention B1 and an article containing the contents thereof" (hereinafter, referred to as "Prior Invention B4") is also disclosed.

E. Regarding a method for producing a laminated body used in a packaging product, Prior Specification B discloses "Prior Invention B5" as follows:

"A method for producing a laminated body to be used for a packaging product, the method comprising: forming a print layer (biomass degree 25%, weight after drying 2 g/m^2) on a base material layer made of a biaxially stretched polyester film 1 formed using fossil fuel-derived terephthalic acid and biomass-derived ethylene glycol (biomass degree: 20%, thickness 12 μm) using a biomass-derived ink; and extruding biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10$ min, biomass degree: 95%) on the print layer; and bonding an aluminum foil (manufactured by Toyo Aluminum Co., Ltd., 1N30, thickness 7 μm) through the adhesive layer (biomass degree 95%, thickness 13 μm)."

(2) Regarding Invention 1

A. In comparison of Patent Invention 1 with Prior Invention B1, it is a matter of common general knowledge that the polymer of terephthalic acid and ethylene glycol is polyethylene terephthalate. Thus, the "biaxially stretched polyester film formed using fossil fuel-derived terephthalic acid and biomass-derived ethylene glycol" of Prior Invention B1 correspond to the "biaxially stretched polyethylene terephthalate" of Patent Invention 1.

The "adhesive layer" made of the "biomass-derived low-density polyethylene (manufactured by Braskem Co., Ltd., SBC818, density: 0.918 g/cm^3 , MFR: 8.1 $\text{g}/10$ min, biomass degree: 95%)" of Prior Invention B1 corresponds to the "adhesive resin layer" made of the "plant-derived low-density polyethylene" "made of only a plant-derived polyolefin resin" of Patent Invention 1.

Then, Patent Invention 1 and Prior Invention B1 are common in the point of:

"A packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate and having a print layer, a barrier layer made of an

aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene", while they differ in the following Different Feature B1.

<Different Feature B1>

In Patent Invention 1, the "base material layer" is one "having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed." In Prior Invention B1, in contrast, the base material layer includes a print layer but does not include anchor-coating layer, and a print layer and an anchor-coating layer are not sequentially disposed on one main surface of a base material layer even though.

B. The above Different Feature B1 will be examined.

The laminated body of the prior invention B1 is used for packaging bodies, such as packaging bags. For storing contents such as liquid and distribute it as a product, it is obvious that improvement of the mechanical properties of the laminated body, such as the lamination strength of the laminated body, has been desired. For improving the lamination strength of the laminated body, it has been widely practiced to laminate another layer, such as an adhesive layer, on an underlayer, such as a base material layer, via an anchor-coating layer. The anchor-coating layer may be disposed on a print layer on the base material layer according to Different Feature B1. As stated above 1(2)C, these matters are well-known matters of art stated in Cited Documents 5 to 7.

On the other hand, effects that can be exerted by the "base material layer" of Patent Invention 1 having an "anchor-coating agent layer" "on which a print layer and an anchor-coating agent layer are sequentially formed" are not stated in particular in the patent specification. Thus, the difference according to Different Feature B1 indicates that Patent Invention 1 does not have a new effect.

C. Then, the difference according to the above Different Feature B1 is merely related to the addition of a well-known technique, and does not produce any new effect. Therefore, it is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

Thus, Patent Invention 1 is substantially identical to Prior Invention B1.

(3) Regarding Patent Invention 3

Prior Specification B discloses the invention of "a packaging product using a laminated body of Prior Invention B1" (hereinafter, referred to as "Prior Invention B3").

In comparison of Patent Invention 3 with Prior Invention B3, they are common in the point of:

"A package comprising a packaging material including a base material layer made of biaxially stretched polyethylene terephthalate and having a print layer, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene", while they differ in the following Different Feature B3.

<Different Feature B3>

In Patent Invention 3, the "base material layer" is one "having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed." In Prior Invention B1, in contrast, the base material layer includes a print layer but does not include an anchor-coating layer, and a print layer and an anchor-coating layer are not sequentially disposed on one main surface of a base material layer.

However, for the same reason as stated in the above 2(2), the difference according to the above Different Feature B3 is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

Thus, Patent Invention 3 is substantially identical to Prior Invention B3.

(4) Regarding Patent Invention 4

Furthermore, Prior Specification B (paragraph [0090]) states that the packaging product of the above Prior Invention B3 is used for packaging bags, laminated tubes, and the like. Such packaging bags or laminated tubes are generally distributed as articles containing the contents. Therefore, it can be said that the invention of "a packaging product using the laminated body of Prior Invention B1 and an article containing the contents thereof" (hereinafter, referred to as "Prior Invention B4") is also disclosed.

In comparison of Patent Invention 4 with Prior Invention B4, they are common in the point of:

"A packaged article comprising: a package including a packaging material including a base material layer made of biaxially stretched polyethylene terephthalate and having a print layer, a barrier layer made of an aluminum foil, and an adhesive resin layer interposed between the base material layer and the barrier layer and made of only a plant-derived polyolefin resin, wherein the plant-derived polyolefin resin is plant-derived low-density polyethylene; and the contents accommodated therein", while they differ in the following Different Feature B4.

<Different Feature B4>

In Patent Invention 4, the "base material layer" is one "having one main surface

on which a print layer and an anchor-coating agent layer are sequentially formed." In Prior Invention B1, in contrast, the base material layer includes a print layer but does not include an anchor-coating layer, and a print layer and an anchor-coating layer are not sequentially disposed on one main surface of a base material layer.

However, for the same reason as stated in the above 2(2), the difference according to the above Different Feature B4 is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

Thus, Patent Invention 4 is substantially identical to Prior Invention B4.

(5) Regarding Patent Invention 5

In comparison of Patent Invention 5 with Prior Invention B5, they are common in the point of: "a method for producing a packaging material, comprising: sandwich-laminating a base material layer made of biaxially stretched polyethylene terephthalate forming a print layer and a barrier layer made of an aluminum foil with adhesive resin layer containing plant-derived polyolefin resin sandwiched therebetween, wherein the adhesive resin layer is made of only plant-derived polyolefin resin, and the plant-derived polyolefin resin is plant-derived low-density polyethylene" while they differ in the following Different Feature B5.

<Different Feature B5>

The "base material layer" of Patent Invention 5 has "one main surface on which a print layer and an anchor-coating agent layer are sequentially formed." In Prior Invention B5, in contrast, a print layer is formed but an anchor-coating layer is not formed, and thus both the print layer and the anchor-coating layer are not sequentially formed on one main surface of the base material layer.

However, for the same reason as stated in the above 2(2), the difference according to the above Different Feature B5 is only a small difference in the implementation means for forming a laminated body that satisfies the requirements of mechanical properties and the like.

Thus, Patent Invention 5 is substantially identical to Prior Invention B5.

(6) Summary of Reason 2 based on Patent Application 2

Since Patent Inventions 1 and 3 to 5 are substantially identical to Prior Inventions B1 and B3 to B5, respectively, the applicant should not be granted a patent for each of Patent Inventions 1 and 3 to 5 under the provisions of Article 29-2 of the Patent Act.

3. Judgment for Reason 1 (Article 29(2) of the Patent Act)

(1) Matters and invention stated in Cited Document 6

A. Cited Document 6 states the following matters:

(A) "[Claim 1]

An aluminum base material-laminated body obtained by sequentially laminating an anchor-coating layer, a first adhesive resin layer, an aluminum base material, a second adhesive resin layer, and a heat-sealing resin layer on one surface of a film base material, wherein the second adhesive resin layer is composed of a composition containing a modified polyolefin resin.

[Claim 4]

A package produced using the laminated body according to Claim 1 or 2.

(B) [Problem to be Solved by the Invention]

[0008]

The present invention intends to provide an aluminum base material-laminated body, which has excellent resistance to organic acids as well as a package that can store contents for a long time without deterioration of the laminate strength over time even when the contents containing organic acids are stored.

(C) "[0030]

The present invention is an aluminum base material-laminated body 10 in which an anchor-coating layer 3, a first adhesive resin layer 4, an aluminum base material 5, a second adhesive resin layer 6, and a heat-sealing resin layer 7 are sequentially laminated on one surface of a film base material 1, the second adhesive resin layer 6 being composed of a composition containing a modified polyolefin resin. The aluminum base material-laminated body 10 according to the present invention can impart a design property by a printed pattern by forming a printing ink layer 2 on a film base material 1 as necessary. Hereinafter, a configuration in which design is imparted by printing will be described.

....

[0032]

Next, as shown in FIG. 2 (b), an anchor-coating agent is applied on the surface on which the printing ink layer 2 was formed on the film base material 1 by the printing method and dried to form an anchor-coating layer 3.

[0033]

Next, as stated in FIG. 2(c), a first adhesive resin layer 4 made of a thermoplastic resin is extruded from a T-die between the anchor-coating layer 3 and the aluminum base material 5 to stack them in layers. The formation of the anchor-coating layer 3 and the formation of the first adhesive resin layer 4, which were described above, can be

performed in-line.

(D) "[0037]

<Example 1>

On one surface of a 12 μm -thick biaxially stretched polyethylene terephthalate (PET) film (manufactured by Toyobo Co., Ltd. : E5100), a polybutadiene-based anchor-coating agent (manufactured by Toyo Ink Co., Ltd., EL451) was applied by a gravure roll-coating method and dried to form an anchor-coating layer having a coating amount of 0.2 g/m^2 after drying.

[0038]

Next, the above anchor-coating layer and a 7 μm -thick aluminum foil (manufactured by Toyo Aluminum Co., Ltd.: 1N30) were stacked in layers by extrusion of a 15 μm -thick low-density polyethylene resin (manufactured by Sumitomo Chemical Co., Ltd., L417) as a first adhesive resin layer.

(E)"[0056]

From the above results, the present invention can provide an aluminum base material-laminated body and a package, which are able to store the contents containing an organic acid for a long period of time.

[Industrial Applicability]

[0057]

The aluminum base material-laminated body of the present invention can be used for packaging fermented foods, pharmaceuticals having volatile components, toiletry-related products, and the like, and is particularly suitable for a refilling standing pouch.

(F) From FIG. 2(c), there can be perceived a laminated body in which a printing ink layer 2, an anchor-coating layer 3, a first adhesive resin layer 4, and an aluminum base material 5 are laminated in this order on one surface of a film base material 1.

B. As is evident from the above statement, Cited Document 6 discloses "Cited Invention 1."

"A laminated body in which a printing ink layer 2, an anchor-coating layer 3, a first adhesive resin layer 4, and an aluminum base material 5 are laminated in this order on one surface of a film base material 1, wherein the film base material 1 is composed of a biaxially stretched polyethylene terephthalate (PET) film (manufactured by Toyobo Co., Ltd.: E5100), the first adhesive resin layer 4 is composed of a low-density polyethylene resin (manufactured by Sumitomo Chemical Co., Ltd.; L417), and the aluminum base material 5 is composed of aluminum foil (manufactured by Toyo Aluminum Co., Ltd.: 1N30) having a thickness of 7 μm ."

C. Paragraph [0056] of Cited Document 6 states a package configured with the laminated

body of Cited Invention 1. Cited Document 6 also discloses the invention of "a package using the using the laminated body of Cited Document 1" (hereinafter, referred as "Cited Invention 3").

D. Paragraph [0057] of Cited Document. 6 states that the laminated body of Cited Invention 1 is used for packaging contents, such as fermented foods and pharmaceuticals. Cited Document 6 also states the invention of "a package using the laminated body of Cited Invention 1 and a packaged article containing contents, such as fermented foods and pharmaceuticals" (hereinafter referred to as "Cited Invention 4").

E. Cited Document 6 further states "Cited Invention 5" for the following manufacturing method.

"A method for producing a laminated body, comprising: forming a printing ink layer 2 on one surface of a biaxially stretched polyethylene terephthalate (PET) film (manufactured by Toyobo Co., Ltd.: E5100) having a thickness of 12 μm by a printing method; applying on the surface a polybutadiene-based anchor-coating agent (EL451, manufactured by Toyo Ink Co., Ltd.) by a gravure roll coating method and drying it to form an anchor-coating layer; and subsequently extruding a 15 μm -thick low-density polyethylene resin (manufactured by Sumitomo Chemical Co., Ltd.: L417) as a first adhesive resin layer to laminate an anchor-coating layer and a 7 μm -thick aluminum foil (manufactured by Toyo Aluminum Co., Ltd.: 1N30)."

(2) Regarding Patent Invention 1

A. In comparison of Patent Invention 1 with Cited Invention 1, the "film base material 1," "printing ink layer 2," "anchor-coating layer 3," and "aluminum base material 5" of Cited Invention 1 correspond to the "base material layer," "print layer," "anchor-coating agent layer," and "barrier layer" of Patent Invention 1, respectively.

In addition, the "first adhesive resin layer 4" of Cited Invention 1 and the "adhesive resin layer" of Patent Invention 1 coincide so long as they are a "layer of adhesive resin."

The "laminated body" of Cited Invention 1 is used for a package containing contents including an organic acid (the above statement (B) of Cited Document 6) and corresponds to the "packaging material" of Patent Invention 1.

In comparison of Patent Invention 1 with Cited Invention 1, they are common in the point of: "A packaging material comprising a base material layer made of biaxially stretched polyethylene terephthalate and having one main surface on which a print layer and an anchor-coating agent layer are sequentially formed, a barrier layer made of an aluminum foil, and a layer of adhesive resin interposed between the base material layer and the barrier layer." While they differ in the following Different Feature 1.

<Different Feature 1>

Regarding the materials of a layer of adhesive resin interposed between the anchor-coating agent layer and the barrier layer, in Patent Invention 1, the adhesive resin layer is made of only a plant-derived polyolefin resin. This plant-derived polyolefin resin is plant-derived low-density polyethylene. On the other hand, in Cited Invention 1, the adhesive resin layer is made of only a low-density polyethylene resin (manufactured by Sumitomo Chemical Co., Ltd.: L417) and is not derived from plants.

B. The above Different Feature B1 will be examined.

In selecting the material of the laminated body used in the package, problems to be considered by those skilled in the art are not only providing the laminated body with a sufficient lamination strength and durability over time but also contributing to prevention of global warming and reduction of oil consumption. Those skilled in the art could compare and study materials that could satisfy these requirements and appropriately select materials.

This point is stated in Cited Document 4 such that the adhesive resin layer 3 and the adhesive layer 5, which are made of a plant-derived low-density polyethylene resin, can adhere to a metal foil, such as an aluminum foil of the barrier layer 4, or the resin layer of the inner thermoplastic resin layer 6. Specifically, it is stated as follows:

"[0020]

.... A laminated body 100 used for making a liquid paper container 101 is, as shown in the cross-sectional view of FIG. 1, an outer thermoplastic resin layer 1, a paper layer 2, an adhesive resin layer 3, a barrier layer 4, an adhesive layer 5, and an internal thermoplastic resin layer 6 are sequentially laminated in this order from the outer surface side of the liquid paper container.

....

[0025]

Like the outer thermoplastic resin layer 1, a plant-derived low-density biomass polyethylene resin is used for the adhesive resin layer 3 as well.

[0026]

For the barrier layer 4, there is used a laminated film in which a metal foil, such as an aluminum foil, is laminated on a base material film or a deposited film in which metal, such as aluminum and tin, or metal oxide, such as silica or alumina, is deposited on a base material film.

....

[0028]

.... the aluminum foil and the deposited layer may be laminated on the adhesive resin layer

3 side or the side opposite thereto.

[0029]

The adhesive layer 5 may be an extruded resin layer or an adhesive layer for lamination. For the extruded resin, like the adhesive resin layer 3, a plant-derived low-density biomass polyethylene resin can be used.

[0030]

The inner thermoplastic resin layer 6 is made of a mixed resin prepared by addition of a low-crystalline rubber component to a plant-derived low-density biomass polyethylene resin at a ratio of 10 to 60% by weight of the former to the weight of the latter."

From these matters, those skilled in the art could easily conceive of the selection of the plant-derived low-density polyethylene resin stated in Cited Document 4 for the material of the adhesive resin layer interposed between the anchor-coating layer and the aluminum base material of Cited Invention 1.

C. In the Written Opinion dated March 25, 2019 (from page 8, line 3 to page 9, line 1), the patentee alleges that the plant-derived low-density polyethylene used in Patent Invention 1 has remarkable effects of exhibiting high lamination strength that cannot be obtained with the conventional petroleum-derived low-density polyethylene and maintaining high lamination strength, which could not be predicted by those skilled in the art.

However, as stated in the above 3(2)B, Cited Document 4 states that the plant-derived low-density polyethylene resin can be used for adhesion to metal foil and resin layers. This statement indicates that the formed laminated body is capable of having a sufficient lamination strength to allow it to be used as a package for a container and maintaining the strength over time.

Thus, those skilled in the art could predict that the selection of plant-derived low-density polyethylene resin of Cited Document 4 as a material of the adhesive resin layer of Cited Invention 1 allows the formed laminated body to exert effects of having a sufficient lamination strength to allow it to be used as a package for a container and maintaining the strength. Thus, the effects exerted by Patent Invention 1 should not be regarded as remarkable effects that could not be predicted by those skilled in the art.

D. Therefore, Patent Invention 1 could be easily invented by those skilled in the art based on the technical matters stated in Cited Invention 1 and Cited Document 4.

(3) Regarding Patent Invention 3

In comparison of Patent Invention 3 with Cited Invention 3, they are different as

follows:

<Different Feature 2>

Regarding the materials of the adhesive resin layer interposed between the anchor-coating agent layer and the barrier layer, Patent Invention 3 states that the resin layer is made of only a plant-derived polyolefin resin and that the plant-derived polyolefin resin is a plant-derived low-density polyethylene, while Cited Invention 3 states that the resin layer is made only of a low-density polyethylene resin (manufactured by Sumitomo Chemical Co., Ltd.: L417) but is not derived from plants.

However, like the reason stated in the above 3(2), those skilled in the art could easily invent Invention 3 based on the technical matters stated in Cited Invention 3 and Cited Document 4 because those skilled in the art could easily conceive of selecting a plant-derived low-density polyethylene resin as a material of the adhesive resin layer interposed between the resin of the anchor-coating layer resin and the aluminum foil of the aluminum base material in Cited Invention 3.

(4) Regarding Patent Invention 4

In comparison of Patent Invention 4 with Cited Invention 4, they are different as follows:

<Different Feature 3>

Regarding the materials of the adhesive resin layer interposed between the anchor-coating agent layer and the barrier layer, Patent Invention 4 states that the resin layer is made of only a plant-derived polyolefin resin and that the plant-derived polyolefin resin is a plant-derived low-density polyethylene, while Cited Invention 4 states that the resin layer is made only of a low-density polyethylene resin (manufactured by Sumitomo Chemical Co., Ltd.: L417) but is not derived from plants.

However, like the reason stated in the above 3(2), those skilled in the art could easily invent Patent Invention 4 based on the technical matters stated in Cited Invention 4 and Cited Document 4 because those skilled in the art could easily conceive of selecting a plant-derived low-density polyethylene resin as a material of the adhesive resin layer interposed between the resin of the anchor-coating layer and the aluminum foil of the aluminum base material in Cited Invention 4.

(5) Regarding Patent Invention 5

A. In comparison of Patent Invention 5 with Cited Invention 5, they are different due to Different Features 4 and 5 as follows:

<Different Feature 4>

Regarding the materials of the adhesive resin layer interposed between the anchor-coating agent layer and the barrier layer, Patent Invention 5 states that the resin layer is made of only a plant-derived polyolefin resin and that the plant-derived polyolefin resin is a plant-derived low-density polyethylene, while Cited Invention 5 states that the resin layer is made only of a low-density polyethylene resin (manufactured by Sumitomo Chemical Co., Ltd.: L417) but is not derived from plants.

<Different Feature 5>

Patent Invention 5 includes sandwich-laminating a base material layer and a barrier layer with an adhesive resin layer sandwiched therebetween, whereas Cited Invention 5 does not specify whether the sandwich lamination is carried out.

B. Regarding the above Different Feature 4, like the reason stated in the above 3(2), those skilled in the art could easily conceive of selecting a plant-derived low-density polyethylene resin as a material of the adhesive resin layer interposed between the resin of the anchor-coating layer and the aluminum foil of the aluminum base material in Cited Invention 5.

C. Regarding the above Different Feature 5, the method for joining each layer of the laminated body is appropriately selected in consideration of the joining strength and the like. The joining of the base material layer and the barrier layer by sandwich lamination with the adhesive resin layer sandwiched therebetween is stated in Cited Document 1 (paragraph [0019]) and Cited Document 7 (paragraph [0029]) and is thus a well-known technique. Those skilled in the art could easily conceive of selecting a joining method by sandwich lamination from various joining methods and using it as a method for joining the biaxially stretched polyethylene terephthalate (PET) film and the aluminum foil of Cited Invention 5.

D. Therefore, those skilled in the art could easily make Patent Invention 5 based on the technical matters stated in Cited Invention 5, Cited Document 4 and well-known techniques stated in Cited Documents 1 and 7.

(6) Summary of Reason 1

Patent Invention 1 could be easily invented by those skilled in the art based on the technical matters stated in Cited Invention 1 and Cited Document 4, Patent Invention 3 could be easily invented by those skilled in the art based on the technical matters stated in Cited Invention 3 and Cited Document 4, Patent Invention 4 could be easily invented by those skilled in the art based on the technical matters stated in Cited Invention 4 and Cited Document 4, and Patent Invention 5 could be easily invented by those skilled in the art based on the technical matters stated in Cited Invention 5, Cited Document 4, and

Cited Documents 1 and 7. Therefore, the applicant should not be granted a patent for each of Patent Inventions 1 and 3 to 5 under the provisions of Article 29(2) of the Patent Act.

4. Closing

As stated above, the applicant should not be granted a patent for each of Patent Inventions 1 and 3 to 5 under the provisions of Article 29(2) and the provisions of Article 29-2 of the Patent Act. Patent Inventions 1 and 3 to 5 fall under Article 113(2) of the Patent Act and should be revoked.

Since Claim 2 has been deleted by the correction according to the Correction Request, the oppositions to the grant of a patent submitted by Patent Opponents 1 and 2 against the patent for Claim 2 are illegal and cannot be amended. Thus, the oppositions shall be dismissed under the provisions of Article 135 of the Patent Act which is applied *mutatis mutandis* in the provision of Article 120-8 of the Patent Act.

Therefore, the decision shall be made as described in the conclusion.

June 14, 2019

Chief administrative judge: WATANABE, Toyohide

Administrative judge: INOUE, Shigeo

Administrative judge: YOKOMIZO, Akinori