Appeal decision

Appeal No. 2018-13380

Appellant	Dow Global Technologies LLC
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The case of appeal against the examiner's decision of refusal of Japanese Patent Application No. 2015-543131, titled "Film Composition, Film Made from the Film Composition and Multi-Layer Film Including the Film and Articles Made Therefrom" (International publication No. WO 2014/081777 published on May 30, 2014, and National Publication of International Patent Application No. 2015-536378 published on December 21, 2015) has resulted in the following appeal decision:

Conclusion

The appeal of the case was groundless.

Reasons

No. 1 History of the procedures

This application was based on an international application filed on November 20, 2013 (the claim of priority under the Paris Convention was received by a foreign receiving office according to applications filed on November 20, 2013 to US and November 21, 2012 to US). A written amendment was submitted on July 16, 2015. A notice of reasons for refusal dated September 15, 2017 was issued and a written opinion and a written amendment were submitted on March 26, 2018. An examiner's decision of refusal dated May 30, 2018 was issued. The appeal against the examiner's decision of refusal was made on October 5, 2018 and at the same time a written amendment was submitted. Another notice of reasons for refusal dated June 3, 2019 was notified by the body and a written opinion and a written amendment were submitted on November 5, 2019.

No. 2 Statements in the scope of claims

The statements in the scope of claims attached to the application are as stated in Claims 1 to 7 in the scope of claims as amended by the written amendment submitted on November 5, 2019. Claim 1 states as follows:

"[Claim 1]

A film composition comprising:

(a) 5 to 75 percent by weight of an ethylene/α-olefin interpolymer composition (LLDPE), based on the total weight of the film composition, having a Comonomer Distribution Constant (CDC) in the range of 75 to 200; a zero shear viscosity ratio

(ZSVR) of at least 2; a density in the range of from 0.865 to 0.910 g/cm^3, and a melt index (I_2) in a range of 0.1 to 5 g/10 minutes; and

(b) 25 to 95 percent by weight of a propylene/α-olefin interpolymer composition, based on the total weight of the film composition,

wherein said propylene/α-olefin interpolymer composition comprises a propylene/α-olefin copolymer or a propylene/ethylene/butene terpolymer, wherein said propylene/α-olefin interpolymer has a crystallinity in the range of 1 percent by weight to 30 percent by weight, a heat of fusion in the range of 2 Joules/gram to 50 Joules/gram, and a DSC melting point in the range of 25°C to 110°C, and

wherein a film formed from the film composition exhibits a holding force (100/75) as measured in accordance with ASTM D4649 that is greater than or equal to a holding force of a comparative film formed from materials without (a) and (b), and exhibits an elastic recovery (60/40) as measured in accordance with ASTM D4649 that is greater than or equal to an elastic recovery of the comparative film."

The statements in the above Claim 1 amended according to the written amendment submitted on October 5, 2018 were amended according to the following amendment in the written amendment submitted on November 5, 2019:
- regarding the ethylene/α-olefin interpolymer composition (LLDPE) provided as the composition (a), the matter of "less than 120 total unsaturation units/1,000,000 carbons, and long chain branching frequency in the range of 0.01 to 3 long chain branches (LCB) per 1000 carbons" is deleted; and
- "ASTM4649" is replaced with "ASTM D4649"

No. 3 Outline of the reasons for refusal notified by the body

The reasons for refusal notified by the body on June 3, 2019 include the following reasons:

"1. The Application does not meet the requirement stipulated in Article 36(6)(ii) of the Patent Act because of inaccuracies in the statements in the scope of claims in the following points.
2. The Application does not meet the requirement stipulated in Article 36(4)(i) of the Patent Act because of inaccuracies in the descriptions in the Detailed Description of the Invention in the following points.
... (Omitted) ...
No. 1 Regarding Reason 1 (clarity)
... (Omitted) ...
1 Regarding Claim 1
(1) Claim 1 states that "a film formed from the film composition exhibits a holding force (100/75) as measured in accordance with ASTM 4649 that is greater than or equal to a holding force of a comparative film formed from materials without (a) and (b), and exhibits an elastic recovery (60/40) as measured in accordance with ASTM D4649 that is greater than or equal to an elastic recovery of the comparative film."
This statement is unclear for the following reasons:

A The meaning of "a holding force (100/75) as measured in accordance with ASTM 4649" is unclear.

(It should be explained in detail what the "holding force" means and how it is measured by means of "ASTM4949." It should be also explained what "100/75" means. If "ASTM4649" reads "ASTM D4649," it should be corrected accordingly.)

B As with the above A, since the meaning of "elastic recovery (60/40)" is unclear, clarification should be given on how to measure it and what "60/40" means.

C As stated in the above A and B, the meanings of "holding force (100/75)" and "elastic recovery (60/40)" are not necessarily clear. However, these are recognized as physical properties of the film made from the film composition.

Then, the above statements in Claim 1 specify the film composition itself by comparing physical properties of the film made from the film composition with physical properties of a comparative film.

In general, physical properties of a film are recognized to depend on not only composition components of the film but also a manufacturing process therefor and a structure thereof (e.g., a single- or multi-layered structure or thickness thereof). However, Claim 1 does not include a manufacturing process, a structure of the film made from the film composition, or that of the comparative film.

Accordingly, it is not understandable what property of the film composition itself can be specified by comparing the physical properties of the film made from the above film composition with the physical properties of the comparative film.

D It is not clear whether the "comparative film that is free of (a) and (b)" means a film containing neither (a) nor (b), or a film containing either (a) or (b) but not both.

(2) As described in paragraph [0018], the "ethylene/α-olefin interpolymer composition" (underlined by the body, the same applies hereinafter) may "further comprise additional components such as one or more other polymers and/or one or more additives." As described in paragraph [0038], the "propylene/α-olefin interpolymer composition" may further comprise one or more additives.

Then, it is recognized that the "film composition" recited in Claim 1 comprises an "ethylene/α-olefin interpolymer composition," which can contain various additives, and a "propylene/α-olefin interpolymer composition," which can contain various additives. However, the meaning of the "film composition" comprising both of them is not always clear.

... (Omitted) ...

No. 2 Reason 2 (enablement requirement)

... (Omitted) ...

1 The invention recited in Claim 1 is a film composition having a characteristic feature (hereinafter, referred to as Characteristic Feature A) of comprising: a specific amount of an "ethylene/α-olefin interpolymer composition" having physical properties of "(a) Comonomer Distribution Constant (CDC) in the range of 75 to 200, and long chain branching frequency in the range of 0.01 to 3 long chain branches (LCB) per 100 carbons" (hereinafter, referred to as "Physical property (a)"); and a specific amount of a "propylene /α-olefin interpolymer composition" having specific physical properties, "wherein a film formed from the film composition exhibits a holding force (100/75) as measured in accordance with ASTM 4649 that is greater than or equal to a holding force

of a comparative film formed from materials without (a) and (b), and exhibits an elastic recovery (60/40) as measured in accordance with ASTM D4649 that is greater than or equal to an elastic recovery of the comparative film." However, the Detailed Description of the Invention is not described clearly and sufficiently to enable a person skilled in the art to carry out the invention recited in Claim 1, for the following reasons:
... (Omitted) ...
(2) As stated in the above No. 1, 1(2), as described in paragraph [0018], "ethylene/α-olefin interpolymer composition" may "further comprise additional components such as one or more other polymers and/or one or more additives." As described in paragraph [0038], the "propylene/α-olefin interpolymer composition" may further comprise one or more additives.

However, the Detailed Description of the Invention specifically describes only compositions containing "ELITE AT 6301" and "VERSIFY 2300". Although the "ethylene/α-olefin interpolymer composition" can contain various additives, and the "propylene/α-olefin interpolymer composition" can contain various additives, there is no description of a manufacturing process to produce the composition satisfying Characteristic Feature A. Moreover, it cannot be said that the process was well-known as of the filing of the application.

No. 4 Judgment by the body

For the same reasons as the reasons for refusal notified by the body, the body has judged that the Application does not comply with Article 36(6)(ii) of the Patent Act since the statements in the scope of claims are still unclear and the body has also judged that the descriptions in the detailed description of the invention in the application do not meet the requirement stipulated in Article 36 (4) (i) of the Patent Act.

The details will be stated below.

1 Regarding Article 36(6)(ii) of the Patent Act
(1) Assumption

Whether or not the statements in the scope of claims fall under Article 36 (6) (ii) of the Patent Act, or whether or not the invention for which a patent is sought is definite should be determined from the viewpoint of whether or not the statement of the claims is indefinite to the extent that might unreasonably harm a third party's benefit by taking into account the statements in the scope of claims as well as the descriptions in the specification attached to the application on the basis of the common technical knowledge of a person skilled in the art as of the filing (2018 (Gyo-Ke) 10117). From this viewpoint, an examination will be carried out below.

(2) Examination

Hereinafter, an examination will be given to each issue of the reasons for refusal notified by the body.
A Regarding the recitation of in Claim 1, "a film formed from the film composition exhibits a holding force (100/75) as measured in accordance with ASTM D4649 that is greater than or equal to a holding force of a comparative film formed from materials without (a) and (b), and exhibits an elastic recovery (60/40) as measured in accordance with ASTM D4649 that is greater than or equal to an elastic recovery of the comparative film"

(A) Regarding "a holding force (100/75) as measured in accordance with ASTM D4649"

a Examination

It is tentatively understandable that "a holding force (100/75) as measured in accordance with ASTM D4649" is a physical property related to some kind of "a holding force" for the film.

However, taking into consideration the descriptions in the specification attached to the application in the patent application (hereinafter, referred to as "the Specification") the body has found that the matter relating to the "holding force" is only mentioned as "holding force (100/75)" in paragraph [0043] of the Detailed Description of the Invention and there is no description of any specific method for measuring the holding force and the meaning of (100/75) even though a good holding force is described as a desirable property in the field of stretchable hood films in paragraph [0002] of the Detailed Description of the Invention.

Further, in the examples described in paragraph [0056] and subsequent paragraphs of the Detailed Description of the Invention, there is only a description of "holding force (60/40 and 100/75) were measured according to ASTM D4649" and only the holding force values of examples and comparative examples are listed in Table 2 in paragraph [0064] thereof. Thus, there is no specific description of any specific method for measuring a holding force or the meaning of (100/75).

Here, even if the contents of "ASTM D4649-03 (re-approved in 2009)" attached as a reference material to the written opinion submitted by the Appellant on November 5, 2019 are examined, the contents include no concrete method for measuring a holding force and no meaning of (100/75). Therefore, it can be said that a person skilled in the art would not know the physical property value of "holding force" or the measuring method thereof as matters of common general technical knowledge.

Then, a person skilled in the art could not clearly recognize what kind of measuring method is used for measuring the physical property of "a holding force (100/75) as measured in accordance with ASTM D4649" recited in Claim 1 and also could not clearly recognize what kind of content is represented by (100/75), even in light of the descriptions in the Specification and the common technical knowledge of a person skilled in the art.

b Regarding Appellant's allegation

The Appellant alleges in the written opinion submitted on November 5, 2019 that "(1001/75)" is clearly described for the "holding force" as is evident from the descriptions in paragraph [0098] in Japanese Patent No. 5824512, which is another application. Thus, this point will be examined as follows.

(a) Descriptions in Japanese Patent No. 5824512

Claim 1 of the scope of the claims in Japanese Patent No. 5824512 recites a multilayered film comprising an inner layer including a polyethylene copolymer having a specific physical property and two external layers, and having an elastic recovery of at least 40% when stretched to 100%. Paragraph [0005] describes that the multilayered

film is suitable for application to a stretch hood. Paragraph [0098] describes "Film Testing Conditions" for films 1 and 2 of the Invention and comparative films 1 and 2 as follows:

"The following physical properties are measured on the films produced:

- 45° Gloss: ASTM D-2457.
- MD and CD Elmendorf Tear Strength: ASTM D- 1922.
- MD and CD Tensile Strength: ASTM D-882.
- Dart Impact Strength: ASTM D-1709.
- Stretch hood 100/75 test:

A film sample of dimensions 100mm x 25mm and given thickness was used for the Stretch hood 100/75 test. The film sample was stretched to 100% elongation at a speed of 1000 mm/min using an Instron 5581 mechanical testing system. When 100% elongation was reached, the film sample was kept in this position for 15 seconds and then returned back to 75% elongation at a speed of 1000 mm/min. After waiting at this elongation for 5 minutes, load on the sample was measured and recorded as holding force. Afterwards, the Instron grips were returned back to zero elongation and the film sample was removed. After 24 hours of waiting at ambient conditions, final length of the film was measured and permanent deformation was calculated using the following equation.

Permanent deformation (%) = (final length - initial length) / (initial length) × 100

Elastic recover was calculated as follows:

Elastic recovery = 100 - permanent deformation

Five specimens were used for each sample and average values for holding force, permanent set and elastic recovery are reported.

- Stretch hood 60/40 test

This test is very similar to the Stretch hood 100/75 test except that initially the film sample is stretched to 60% elongation at a speed of 1000 mm/min, held there for 15 seconds, and then returned back to 40% elongation at the same speed. Holding force was measured after waiting for 5 minutes at 40% elongation. The procedures for measuring permanent deformation and elastic recovery are exactly the same as for the Stretch hood 100/75 test method."

Then, [Table 24] in paragraph [0101] in Japanese Patent No. 5824512 (also described as "Table 12") describes, as "Film physical property data," "Average Elastic Recovery (%)" and "Average Permanent Deformation (%)" in "Stretch hood-100/75 test" and "Average Elastic Recovery (%) and "Average Permanent Deformation (%)" in "Stretch hood-60/40 test."

(b) Examination

i Regarding (100/75)

Claim 1 in the scope of claims in Japanese Patent No. 5824512 recites a multilayered film. Here, the film is stated as being suitable for stretch hoods. Then, Examples describe the "Stretch hood 100/75 test," which is one of methods for testing produced films. Briefly, Examples describe that a film sample having a size of 100 mm × 25 mm was stretched to 100% elongation at a speed of 1000 mm/min, held for 15 seconds, and then returned back to 75% elongation at a speed of 1000 mm/min. Further, in Examples, it is also stated that, in the "Stretch hood 60/40 test," a film sample was similarly stretched to 60% elongation, held for 15 seconds, and then

returned back to 40% elongation at a speed of 1000 mm/min.

In this way, in Japanese Patent No. 5824512, a "Stretch hood 100/75 test" is carried out such that a film sample was stretched to 100% elongation and then returned back to 75% elongation. Then, various physical property values are expressed as "Stretch hood 100/75 test."

However, although this description merely describes the test method for confirming the physical properties of the multilayered film described in Japanese Patent No. 5824512, there is no description indicating that it is common to express 100/75 when performing such an operation method. In addition, the Appellant does not state a rational reason that "(100/75)" recited in Claim 1 of the Application means the operation method described in Japanese Patent No. 5824512.

Then, it cannot be immediately understood that "(100/75)" recited in Claim 1 of the Application means the above operation. Furthermore, there is no reason to say that it is common general knowledge to express the operation described in Japanese Patent No. 5824512 as "(100/75)."

Therefore, even in view of the descriptions in Japanese Patent No. 5824512, it cannot be said that the definition of "(100/75)" recited in Claim 1 of the Application is clear.

ii Regarding method for measuring holding force

In the written opinion submitted on November 5, 2019, the Appellant explains nothing about the method for measuring a holding force recited in Claim 1 of the Application.

Although there is no Appellant's allegation, in view of the statement that "Stretch hood 100/75 test" of Japanese Patent No. 5824512 that the film was stretched to 100% elongation and then returned back to 75% elongation, and then load on the sample was measured and recorded as a holding force, here, consideration is given to the case where this method for measuring a holding force is assumed to be the one recited in Claim 1 of the Application. As stated in the above i, the above description describes the test method for a multilayered film described in Japanese Patent No. 5824512. It is just a part of the measurement method when measuring the average elastic recovery and the average permanent deformation rate. Therefore, it cannot be said that the above description immediately means the method for measuring a holding force recited in Claim 1 of the Application. In addition, the method for measuring a holding force described in Japanese Patent No. 5824512 cannot be said to be common general technical knowledge of the method of measuring a holding force.

iii Regarding Japanese Patent No. 5824512

The column of Patentee in Japanese Patent No. 5824512 is filled with the same name as the Appellant of the present application. It cannot be admitted that the test methods "Stretch hood 100/75 test" and "Stretch hood 60/40 test" described in this publication are recognized as common technical knowledge of a person skilled in the art as methods for measuring a "holding force" including its specific measurement

conditions.

(c) Summary

As stated, therefore, the Appellant's allegation is not acceptable.

c Summary

Therefore, it cannot be said that the invention for which a patent is sought including the matter specified by "a holding force (100/75) as measured in accordance with ASTM D4649" recited in Claim 1 is clear.

(B) Regarding "an elastic recovery (60/40) as measured in accordance with ASTM D4649"

a Examination

It is tentatively understandable that "an elastic recovery (60/40) as measured in accordance with ASTM D4649" is a physical property for the film.

However, examination of the descriptions in the specification has found that the matter relating to the "elastic recover" is only mentioned as "an elastic recovery (60/40)" in paragraphs [0044] and [0045] of the Detailed Description of the Invention and there is no description of any specific method for measuring the elastic recover and the meaning of (60/40) even though an good elastic recovery is described as a desirable property in the field of stretchable hood films in paragraph [0002] of the Detailed Description of the Invention.

Further, in the examples described in paragraph [0056] and subsequent paragraphs of the Detailed Description of the Invention, there is only a description of "elastic recovery (60/40 and 100/75) were measured according to ASTM D4649" and only the elastic recovery values of examples and comparative examples are listed in Table 2 in paragraph [0064] thereof. Thus, no description is given of any specific method for measuring elastic recovery or the meaning of (60/40).

Here, "ASTM D4649-03 (re-approved in 2009)" is attached as a reference material to the written opinion submitted by the Appellant on November 5, 2019.

Certainly, in the reference material, there is a description of "Elastic recovery" corresponding to the "elastic recovery" in the application. TABLE 1 (upper left column on page 3) is entitled "Physical and Mechanical Properties of Substances." In this table, "elastic recovery" is described in the item of properties and "D5459" is described in the ASTM test method. However, there is no description of any method for measuring elastic recovery including the specific measurement conditions thereof. Also, the meaning of "(60/40)" is not described. Furthermore, no other technical matters related to elastic recovery are described.

Then, a person skilled in the art could not clearly recognize what kind of measuring method is used for measuring the physical property of "an elastic recovery (60/40) as measured in accordance with ASTM D4649" recited in Claim 1 and also could not clearly recognize what kinds of details are represented by (60/40), even in light of the descriptions in the Specification and the common technical knowledge of a person skilled in the art.

b Regarding Appellant's allegation

The Appellant alleges in the written opinion submitted on November 5, 2019 that "(60/40)" is clearly described for the "elastic recovery" as is evident from the descriptions in paragraph [0098] in Japanese Patent No. 5824512, which is another application. This point will be examined as follows.

(a) Descriptions in Japanese Patent No. 5824512

Japanese Patent No. 5824512 describes the matters stated in the above (A)b(a).

(b) Examination

i Regarding (60/40)

As for the description of (60/40), the Appellant's allegation cannot be adopted, for the same reason as stated in the above (A)b(b)i.

ii Regarding method for measuring elastic recovery

The Appellant does not explain anything about how to measure elastic recovery recited in Claim 1 of the Application in the written opinion submitted on November 5, 2019.

Although the Appellant makes no allegation, just in case, consideration is given to an assumption that elastic recovery calculated from the permanent deformation when a film sample was stretched to 60% elongation and then returned back to 40% elongation, followed by being returned back to 0 in the "Stretch hood 60/40 test," which refers to the "Stretch hood 100/75 test" in Japanese Patent No. 5824512, is the elastic recovery recited in Claim 1 of the Application, and a method for measuring such an elastic recovery is the method for measuring the elastic recovery recited in Claim 1 of the Application. As stated in the above (A)b(b)i, the above description describes a method for testing a multilayered film described in Japanese Patent No. 5824512 and is just a part of the measurement method when measuring the average elastic recovery rate and the average permanent deformation rate. Therefore, it cannot be said that the above description immediately means the method for measuring elastic recovery recited in Claim 1 of the Application. Moreover, it cannot be said that the method for measuring elastic recovery described in Japanese Patent No. 5824512 is a matter of common technical knowledge for the method for measuring elastic recovery.

iii Regarding the publication of Patent No. 5824512

The Patentee of Patent No. 5824512 has the same name as the Appellant of the present application. It cannot be admitted that the test methods "Stretch hood 100/75 test" and "Stretch hood 60/40 test" described in this publication are recognized as common technical knowledge of a person skilled in the art as methods for measuring an "elastic recovery" including its specific measurement conditions.

(c) Summary

As stated, therefore, the Appellant's allegation is not acceptable.

c Summary

Therefore, it cannot be said that the invention for which a patent is sought

including the matter specified by "an elastic recovery (60/40) as measured in accordance with ASTM D4649" recited in Claim 1 is clear.

(C) Regarding "comparative film that is free of (a) and (b)"

This matter is examined forth as "D" in the reasons for refusal notified by the body, but in view of the case, it is considered third as "(C)."

a Examination

The written opinion submitted on November 5, 2019 states that "the term 'comparative film that is free of (a) and (b)' refers to a film that does not contain one or more of (a) and (b)." and Tables 1 and 4 can be referred to.

Considering the statement in this opinion, "a film that does not contain one or more of (a) and (b)" can be ambiguously understood as "a film that does not contain one of (a) and (b)" and "a film containing neither (a) nor (b)."

In the case of "a film that does not contain one of (a) and (b)," it can be understood that it means a film containing one component of (a) or (b), thereby allowing the comparative film to be clearly recognized. On the other hand, in the case of "a film containing neither (a) nor (b)," no component of the comparative film is specified and it is thus not clear what kind of component the film contains.

It may be assumed that the fact that no component of the comparative film is specified means that the film may be any film containing any component. However, even if so, the meaning of "any film containing any component" is not clear in terms of what kind of component is included in the film.

Therefore, it cannot be said that the invention for which a patent is sought including the matter specified by "comparative film that is free of (a) and (b)" is clear.

(D) Regarding "C" in the reasons for refusal notified by the body

"C2" in the reason for refusal notified by the body is roughly as follows: Claim 1 of the present application specifies a "film composition" such that the physical properties of a "film" formed from the "film composition," which are "a holding force (100/75) as measured in accordance with ASTM D4649" and "an elastic recovery (60/40) as measured in accordance with ASTM D4649," are greater than or equal to those of "a comparative film formed from materials without (a) and (b)." Although it is generally understood that the physical properties of a film also depend on the production process and structure of the film, Claim 1 of the Application recites nothing about the production process and structure of the film. Therefore, specifying the film composition by defining the physical properties of a film for which the production process and structure of the film is specified is unclear in terms of what kind of property of the film composition is intended to be used.

As stated in the above (A) to (C), the above recitation of Claim 1 includes "a holding force (100/75) as measured in accordance with ASTM D4649," "an elastic recovery (60/40) as measured in accordance with ASTM D4649," and "a comparative film without (a) and (b)." These matters are not clear. Moreover, the above specific feature in which these recited matters are combined is not clear in the following points.

a Examination

As stated in the reasons for refusal notified by the body, it cannot be said that the physical properties of a film are determined only by the components in film composition that constitutes the film. It is a matter of common technical knowledge that the physical properties of the film may vary depending on a film-forming process (for example, whether it is a non-stretched film or a stretched film) and the structure of the film (whether it is a single layer or a multilayer, or its thickness, etc.). The film and the comparative film, which are formed from their respective film compositions recited in Claim 1, are not specified by production processes and structures. Thus, it can be said that the physical property values of the respective films are not always certain and they include significantly different values due to different production process and structure.

Then, the film and the comparative film, which are formed from their respective film compositions recited in Claim 1, show their respective holding forces and elastic recovery values, but the values do not show the same constant tendency. The identification by the fact that such non-constant values of holding force and elastic recovery are greater than or equal to those if the comparative film is technically unclear in meaning.

b Regarding Appellant's allegation

In the written opinion submitted on November 5, 2019, the Appellant alleged that the "film" recited in Claim 1 is a film produced from the film composition recited in Claim 1, whereas the "comparative film" is a film having its own "film composition" different from the "film" but identical therewith (i.e., formed in the same production process, the same structure, and/or the same thickness as those of the "film.") The Appellant alleges that. for example, the films of "Comparative Examples" and the films of "Inventive Examples" were respectively formed from different compositions, but were identical in terms of other matters (the same production process, the same structure, and the same thickness). Such a difference is caused only by the difference in the "film composition" itself, and does not belong to other items such as a film-forming process and thickness.

Examining this allegation, first, the Appellant's allegation merely states that matters other than the composition (production process, structure and/or thickness) of the film are the same as those of the comparative example and does not demonstrate the identification of the production process and structure of the film.

Next, the examination will be conducted in line with the Appellant's allegation.

Certainly, it can be understood that the Inventive Examples and the Comparative Examples in the Specification are films formed by the same process, from the same structure, and to the same thickness, but are different in film composition. It can be said that the holding force and elastic recovery of the film recited in Claim 1 are greater than or equal to those of the comparative film.

However, the above content is only an example when, of the Appellant's allegations, the film recited in Claim 1 is different in film composition from the comparative film but formed by the same process from the same structure and/or the same thickness as those of the comparative film. This is just an example when the production process, structure, and thickness are all the same as those of the comparative

film. The Appellant alleges that even though the production process, structure, and/or thickness are the same as those of the comparative example, the physical properties of the film recited in Claim 1 are satisfied; i.e., the physical properties of the film according to Claim 1 are satisfied even when one of the production process, the structure, and the thickness is the same. However, even examining the Inventive Examples and the Comparative Examples described in the specification, it cannot be said that the Appellant's allegation is supported.

Then, as stated in the above a, the physical property values of the films are different when all the production process, structure, and thickness are different.

Therefore, the Appellant's allegation is not acceptable.

c Summary

Hence, it cannot be said that the invention for which a patent is sought in which the "film composition" recited in Claim 1 comprises a characteristic feature in which "a holding force (100/75) as measured in accordance with ASTM D4649" and "an elastic recovery (60/40) as measured in accordance with ASTM D4649," which are the physical properties of a "film" formed from the film composition, are greater than or equal to those of "a comparative film formed from materials without (a) and (b)" is clear.

(E) Summary of the recitations represented in the above A

As stated above, therefore, regarding the invention for which a patent is sought, including the matters specified by the recitations represented in the above A, it can be said that statements in the scope of claims are so unclear that the interests of a third party are unduly harmed even if consideration is given to the scope of claims, the specification, and the descriptions in the above reference material that can be said to have been common technical knowledge at the time of filing the application by a person skilled in the art.

B Regarding "(2)" in the reasons for refusal notified by the body

"(2)" in the reasons for refusal notified by the body is that what is meant by a "film composition" that can contain various additives is not necessarily clear, while the "ethylene/α-olefin interpolymer composition" and "propylene/α-olefin interpolymer composition" recited in Claim 1 of the Application can be recognized as those further containing additional components.

(A) Examination

Regarding the recitation of "ethylene/α-olefin interpolymer composition" in Claim 1, the component other than ethylene/α-olefin interpolymer is not specified in Claim 1, whereas paragraph [0018] in the Detailed Description of the Invention describes that "the ethylene/α-olefin interpolymer composition may further comprise additional components such as one or more other polymers and/or one or more additives," followed by the description of specific additional components. According to such descriptions in the Detailed Description of the Invention, the "ethylene/α-olefin interpolymer composition" recited in Claim 1 can be interpreted as any one of compositions including a composition that contains only an "ethylene/α-olefin

interpolymer" and a composition that contains not only an "ethylene/α-olefin interpolymer" but also an additional component.

Regarding the recitation of "propylene/α-olefin interpolymer composition" in Claim 1, paragraph [0018] in the Detailed Description of the Invention describes that "the propylene/α-olefin interpolymer composition may further comprise one or more additives," followed by the description of specific additives.

Thus, the "propylene/α-olefin interpolymer composition" recited in Claim 1 can be interpreted as any one of compositions including a composition that contains only an "propylene/α-olefin interpolymer" and a composition that contains not only an "propylene/α-olefin interpolymer" but also an additional component.

Furthermore, in the written opinion submitted on November 5, 2019, the Appellant's allegation makes a similar interpretation.

Here, giving consideration based on the above interruption, if the terms "ethylene/α-olefin interpolymer composition" and "propylene/α-olefin interpolymer composition" recited in Claim 1 respectively mean only "ethylene/α-olefin interpolymer" and "propylene/α-olefin interpolymer," their components can be clearly stated. However, if each of them means a composition further comprising an additional component, the composition can be not clearly stated because of no specified additional composition. The descriptions in the Detailed Description of the Invention include only non-limiting exemplified components. It is thus not clear which component are to be used. Moreover, there is no common technical knowledge that additional components are apparent.

Then, regarding the "film composition" comprising the above "ethylene/α-olefin interpolymer composition" and "propylene/α-olefin interpolymer composition," it cannot be said that an additional component other than ethylene/α-olefin interpolymer and propylene/α-olefin interpolymer is clear. Therefore, it cannot be said that the film composition recited in Claim 1 is clear.

(B) Regarding Appellant's allegation

In the written opinion submitted on November 5, 2019, the Appellant cites paragraph [0018] in the Detailed Description of the Invention and states that the composition recited in Claim 1 may or may not comprise an additional component, such as an additive. The Appellant also alleges that adding another component to the film composition would be apparent to a person skilled in the art from the common technical knowledge in the field.

As the Appellant alleges, it can be understood that the film composition recited in Claim 1 may or may not comprise an additional component, such as an additive. However, if it comprises an additional component, the additional component is still unclear.

Therefore, the Appellant's allegation is not acceptable.

(C) Summary

As stated above, therefore, regarding the invention for which a patent is sought,

including the matters specified by the recitations represented in the above A, it can be said that the statements in the scope of claims are so unclear that the interests of a third party are unduly harmed even if consideration is given to the scope of claims, the specification, and the common technical knowledge at the time of filing the application by a person skilled in the art.

2 Regarding Article 36(4)(i) of the Patent Act
(1) Premise

Article 36(4) of the Patent Act stipulates that "the descriptions in the Detailed Description of the Invention as provided in item (iii) of the preceding Paragraph shall comply with each of the following items." Then, Article 36(4)(i) of the Patent Act stipulates that "in accordance with Ordinance of the Ministry of Economy, Trade and Industry, the statement shall be clear and sufficient as to enable any person ordinarily skilled in the art to which the invention pertains to work the invention."

Article 36(4)(i) of the Patent Act specifies the so-called enablement requirements for the Detailed Description of the Invention. In the case of an invention of a product, it is interpreted that the Detailed Description of the Invention should include a specific description of making and using the product and, if there is no such a description, should be described, to the extent that a person skilled in the art can make the product and use the product without the need for excessive trial and error or complicated and advanced experiments, based on the descriptions in the specification and drawings and the common general knowledge as of the filing.

(2) Regarding the statements in the scope of claims

It is as stated in the above "No. 2."

(3) Regarding the descriptions in the Detailed Description of the Invention

The Detailed Description of the Invention describes the following matters:

(a) Paragraphs [0007] to [0013] describe the ethylene/α-olefin interpolymer composition, which is the component (a) included in the film composition of the Invention, with the properties thereof. Paragraph [0018] describes the additional component in the ethylene/α-olefin interpolymer composition as follows:

"[0018]

The ethylene/α-olefin interpolymer composition may further comprise additional components such as one or more other polymers and/or one or more additives. Such additives include, but are not limited to, antistatic agents, color enhancers, dyes, lubricants, fillers such as TiO_2 or $CaCO_3$, opacifiers, nucleators, processing aids, pigments, primary antioxidants, secondary antioxidants, processing aids, UV stabilizers, anti-blocks, slip agents, tackifiers, anti-static agents, fire retardants, anti-microbial agents, odor reducer agents, anti-fungal agents, and combinations thereof. The ethylene-based polymer composition may contain from about 0.1 to about 10 percent by the combined weight of such additives, based on the weight of the ethylene-based polymer composition including such additives."

Furthermore, paragraphs [0020] to [0027] describe the process for producing the ethylene/α-olefin interpolymer composition

(b) Paragraphs [0028] to [0033] describe the propylene/α-olefin interpolymer

composition, which is the component (b) included in the film composition of the Invention, with the properties thereof. Paragraph [0038] describes the additional component in the propylene/α-olefin interpolymer composition as follows:
"[0038]

The propylene/α-olefin interpolymer composition may further comprise one or more additives. Such additives include, but are not limited to, antistatic agents, color enhancers, dyes, lubricants, fillers, pigments, primary antioxidants, secondary antioxidants, processing aids, UV stabilizers, and combinations thereof. The propylene/α-olefin interpolymer composition may contain any amounts of additives. The propylene/α-olefin interpolymer composition may compromise from about 0 to about 20 percent by the combined weight of such additives, based on the weight of the propylene/α-olefin interpolymer composition and the one or more additives."

(c) Paragraphs [0043] to [0045] describe that films formed from the film composition have greater or equal holding force and elastic recovery when compared to comparative films that do not contain component (a) or (b).

(d) In the examples described in paragraph [0057] and thereafter, the following matters are described:
"[0057]

Five 3-layer films (Inventive Examples 1-2 and Comparative Examples 1 to 3), each film comprising two skin layers, each skin layer having the same composition and one core layer positioned between the two skin layers, were co-extruded. Each film had a thickness of 89 microns. The three-layer films were made using the polymeric components for the skin and core layers as shown in Table 1. VERSIFY 2300 is a propylene-based polymer which is commercially available from The Dow Chemical Company. ELITE AT 6101 and ELITE AT 6301 are ethylene-based polymers which are commercially available from The Dow Chemical Company. ATTANE NG 4701G is an ethylene-based polymer which is commercially available from The Dow Chemical Company.
[0058]

Tables 2 and 3 provide certain physical properties of the Inventive and comparative Examples. As can be seen, Inventive Examples 1 and 2, in which the core layer comprises an inventive film composition, exhibit elastic recovery (60/40 and 100/75) equal to or greater than elastic recovery of Comparative Example 1, in which the core layer consists of a propylene/α-olefin interpolymer. Likewise, Inventive Example 2 exhibits a holding force (100/75) equal to that of Comparative Example 3, in which the core layer consists of an ethylene/α-olefin interpolymer.
[0059]

Additional three-layer films (Inventive Examples 3-4 and Comparative Examples 4-5), each comprising two skin layers, each skin layer having the same composition, and one core layer positioned between the two skin layers, were co-extruded. Inventive Examples 3-4 and Comparative Examples 4-5 were made using the polymeric components for the skin and core layers as shown in Table 4. AFFINITY PL 1880G is an ethylene alpha-olefin copolymer having a density measured according to ASTM D 792 of 0.902 g/cm^3, and a melt index, I_2, measured according to ASTM D 1238 (2.16 kg, 190°C) of 1 g/10 min. AFFINITY PL 1880G is

commercially available from The Dow Chemical Company (Midland, Mich.). LDPE 1321 is a low density polyethylene which is commercially available from The Dow Chemical Company, having a density measured according to ASTM D 792 of 0.921 g/cm^3, and a melt index, I_2, measured according to ASTM D 1238 (2.16 kg, 190°C) of 0.25 g/10 min. LDPE 20020 is a low density polyethylene which is commercially available from PEMEX (Mexico, D.F.), having a density measured according to ASTM D 792 of 0.9205 g/cm^3, and a melt index, I_2, measured according to ASTM D 1238 (2.16 kg, 190° C) of 2.0 g/10 min. XUS 59900.91 is an enhanced polyethylene resin (LLDPE) which is commercially available from The Dow Chemical Company, having a density measured according to ASTM D792 of 0.913 g/cm^3, and a melt index, I_2, measured according to ASTM D1238 (2.16 kg, 190° C) of 0.80 g/10 min.

[0060]

Table 5 provides certain physical properties for Comparative Examples 4-5. Table 6 provides certain physical properties for Inventive Examples 3-4.

[0061]

Table 7 provides certain physical properties of the Inventive Examples 3-4 and Comparative Examples 4-6. As can be seen, Inventive Examples 3 and 4, in which the core layer comprises an inventive film composition, exhibit Stress and Strain properties equal to or greater than Stress and Strain properties of Comparative Example 4, in which the core layer consists of a propylene/α-olefin interpolymer, and Example 6, in which the core consists of an ethylene/α-olefin interpolymer.

[0062]

Test Methods

Test methods include the following:

Elastic Recovery (60/40 and 100/75) shown in Table 2 were measured according to ASTM D4649.

Elastic Recovery (at 55% and 60% strain) shown in Tables 5 and 6 were measured according to ASTM D5459 on specimens having a width of 25.4 mm.

Holding Force (60/40 and 100/75) shown in Table 2 were measured according to ASTM 4649.

Normalized tear CD and MD were measured according to ASTM D1922.

Secant Modulus was measured according to ASTM D882.

Dart B was measured according to ASTM D1709.

The present invention may be embodied in other forms without departing from the spirit and the essential attributes thereof, and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification, as indicating the scope of the invention.

[0063]

【表１】

実施例	層厚さ比、表皮/コア/表皮	コア樹脂または樹脂ブレンド	表皮樹脂
比較実施例１	20/60/20	VERSIFY 2300	ATTANE NG 4701G
発明的実施例１	20/60/20	VERSIFY 2300/ELITE AT 6101、60 重量%/40 重量%	ELITE AT 6301
発明的実施例２	20/60/20	VERSIFY 2300/ELITE AT 6101、30 重量%/70 重量%	ELITE AT 6301
比較実施例２	20/60/20	ELITE AT 6101	ATTANE NG 4701G
比較実施例３	20/60/20	ELITE AT 6101	ELITE AT 6301

【表１】 [Table 1]
実施例　Example
比較実施例　Comparative Example
発明的実施例　Inventive Example
層厚さ比、表皮／コア／表皮　Layer thickness ratio, skin/core/skin
コア樹脂または樹脂ブレンド　Core resin or resin blend
表皮樹脂　Skin resin
重量%　wt%

[0064]

【表２】

実施例	弾性回復 60/40、%	把持力 60/40、lb-ft	弾性回復 100/75、%	把持力 100/75、lb-ft
比較実施例１	52	1.4	47	1.5
発明的実施例１	55	1.9	52	2.2
発明的実施例２	52	2	49	2.3
比較実施例２	48	1.9	44	2.1
比較実施例３	49	2.1	43	2.3

【表２】 [Table 2]
実施例　Example
比較実施例　Comparative Example
発明的実施例　Inventive Example
弾性回復　Elastic recovery
把持力　Holding force
"

(4) Examination
A　Interpretation of the invention recited in Claim 1 of the Application
The Invention recited in Claim 1 of the Application, which is unclear as stated in the above 1, is interpretated as follows and examined for the enablement requirement.
As alleged by the Appellant, the above 1(2)A(A) and (B) were interpreted as

details described in Japanese Patent No. 5824512.

As alleged by the Appellant, the above 1(2)A(C) is interpreted as "a film that does not contain one of (a) and (b)."

The above 1(2)A(D) was interpreted literally as details described in the examples of the Specification.

The above 1(2)B was interpreted such that the composition comprises any one of components described in paragraphs [0018] and [0038] when components (a) and (b) contain additional components.

B Examination

(A) Regarding the invention recited in Claim 1 of the Application

The invention recited in Claim 1 of the Application is a film composition comprising (a) 5 to 75 percent by weight of an ethylene/α-olefin interpolymer composition (LLDPE) having specific physical properties and (b) 25 to 95 percent by weight of a propylene/α-olefin interpolymer composition having specific physical properties, and exhibiting a specified holding force (100/75) and a specified elastic recovery (60/40), which are determined by comparing the film formed from the film composition with a comparative film.

Then, as stated in the above 1(2)B(A), the ethylene/α-olefin interpolymer composition provided as the composition (a) can be recognized as one containing only "ethylene/α-olefin interpolymer" or one containing not only it but also an additional component. In addition, the propylene/α-olefin interpolymer composition provided as the composition (b) can be recognized as one containing only "propylene/α-olefin interpolymer" or one containing not only it but also an additional component.

(B) Regarding the descriptions in the Detailed Description of the Invention

The Detailed Description of the Invention describes the components (a) and (b) in the film composition, paragraphs [0018] and [0038] describe additional components.

Furthermore, paragraphs [0043] to [0045] describe a film formed from the film composition have a holding force and an elastic recovery, which are greater than or equal to those of the comparative film free of the component (a) or (b).

Then, in Examples, three-layer films are described as Inventive Examples 1 and 2, in which specific composition corresponding to the film composition is use for the core layer, each having a holding force and an elastic recovery which are greater than or equal to those of Comparative Examples 1 to 3 free of the composition (a) or (b) in the core layer.

Here, as component (a) in each of the core layer's compositions of Inventive Examples 1 and 2, ELITE AT 6101 is described to be used and is an ethylene-based polymer commercially available from The Dow Chemical Company. According to the written request for trial submitted on October 15, 2018, it can satisfy the physical properties recited in Claim 1 of the Application. Likewise, furthermore, as component (b), "VERSIFY 2300" is described to be used and is a propylene-based polymer commercially available from The Dow Chemical Company. According to the written request for trial submitted on October 15, 2018, it can satisfy the physical properties recited in Claim 1 of the Application.

(C) Examination

As stated above, the Inventive Examples described in the Detailed Description of the Invention can be recognized to be examples in which only "ethylene/α-olefin interpolymer" is used as the component (a) of the film composition and similarly they can be recognized to be examples in which only propylene/α-olefin interpolymer is used as the component (b). Also, the Inventive Examples demonstratively show that the film made from the film composition has the holding force (100/75) and the elastic recovery (60/40), which means they are greater than or equal to those of the comparative film by comparing the film made from the film composition with the comparative film. Therefore, they are supposed to show that the film composition recited in Claim 1 of the Application was able to be produced.

However, the Inventive Examples contain an example in which only "ethylene/α-olefin interpolymer" is used as the component (a) and it is not the case of a composition further containing an additional component. Likewise, they contain an example in which only "propylene/α-olefin interpolymer" is used as the component (b) and it is not the case of a composition further containing an additional component.

It can be said that it is common technical knowledge that the physical properties of a film vary depending on the film composition materials used. Then, it can be said physical properties of a film composition of the invention recited in Claim 1 of the Application will vary when it is prepared with the component (a) containing "ethylene/α-olefin interpolymer" with additional components, which may include one or more other polymers, and the component (b) containing "propylene/α-olefin interpolymer" with additional components. In this case, it cannot be said that a holding force (100/75) and an elastic recovery (60/40), which obtained by comparing the film with the comparative film, would be the same as that of the inventive example. Then, there is no common technical knowledge that the film maintains physical properties even when the composition thereof contains additional components to the components (a) and (b) and the holding force (100/75) and the elastic recovery (60/40) which obtained by comparing it with a comparative film would be equal to or greater than the comparative film.

As stated above, therefore, the Detailed Description of the Invention includes no description that allows a person skilled in the art to produce the invention recited in Claim 1 of the Application without excessive trial and error or complicated and advanced experiments on the basis of the common general knowledge as of the filing when he/she uses a film composition containing additional components to components (a) and (b) of the invention recited in Claim 1.

(5) Appellant's allegation

In the written opinion submitted on November 5, 2019, the Appellant alleges that "the difference between the film of 'Inventive Example' and the film of 'Comparative Example,' which can be confirmed, is caused only by the difference in the 'film composition' itself, and does not belong to other items such as a film-forming process and thickness."

This Appellant's allegation does not reply to the reasons for refusal. Therefore

the allegation is not acceptable.

(6) Summary as to Article 36(4)(i) of the Patent Act

Therefore, the descriptions in the Detailed Description of the Invention of the Specification are unclear and insufficient to enable a person skill in the art to carry out the invention recited in Claim 1. Thus, the descriptions in the Detailed Description of the Invention of the Specification do not comply with Article 36(4)(i) of the Patent Act.

3 Summary

The Application does not comply with Article 36(6)(i) of the Patent Act due to deficiencies in the statements in the scope of claims, and thus does not meet the requirements stipulated in Article 36(6) of the Patent Act. Furthermore, the descriptions in the Detailed Description of the Invention do not meet the requirement stipulated in Article 36(4)(i) of the Patent Act.

No. 5 Closing

As stated above, the Application of the Patent does not meet the requirements stipulated in Article 36(6) and (4)(i) of the Patent act. Therefore, the Application should be rejected.

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

March 2, 2020

Chief administrative judge: OGUMA, Koji
Administrative judge: SATO, Takefumi
Administrative judge: HASHIMOTO, Shigekazu