Appeal Decision

Appeal No. 2020-12022

Appellant Berry Film Products Company, Inc.

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Regarding the appeal against the examiner's decision of refusal of Japanese patent application No. 2017-511740, entitled " Embossed Matte and Glossy Plastic Film and the Method of Making the Same" (international publication No. WO 2016/ 033152 published on March 3, 2016; published Japanese translations of PCT international publication for patent application No. 2017-529431 published on October 5, 2017) has resulted in the following appeal decision.

Conclusion

The appeal of the case was groundless.

Reasons

I Prosecution History

The international application date of the present application is August 26, 2015 (Priority claim under the Paris Convention was received by the foreign office on August 29, 2014 and November 18, 2014, both in the United States of America), and the procedural details of the present application are as follows.

August 5, 2019 : Notification of reasons for refusal
January 9, 2020 : Submission of written opinion
April 23, 2020 : Examiner's decision of refusal
August 27, 2020 : Submission of a written request for appeal against examiner’s decision of refusal and a written amendment
January 14, 2021 : Submission of the written statement

II Decision to dismiss the written amendment filed on August 27, 2020

[Conclusion of the decision to dismiss the written amendment]

The written Amendment filed on August 27, 2020 is hereby dismissed.

[Reasons] (Determination of whether the amendment is appropriate)

1. Details of the amendment

The written amendment submitted on August 27, 2020 (hereinafter referred to as "the Amendment") includes making the following Amendment (1) for Claim 15, which was an independent claim before the amendment.

(1) Claim 15 after the Amendment

By the Amendment, Claim 15 was amended as follows. (The underlined parts are the amended parts.)

"A method for producing an embossed thermoplastic polymer film, the method comprising:

a step of advancing a thermoplastic polymer film having a basis weight of about 30 gsm or less and an impact strength of at least about 15 g between a first embossing roll and a non-embossing counter roll, wherein the first embossing roll comprises at least one micro-embossing pattern suitable to impart a matte finish onto the film; and at least one embossing pattern having a first embossing depth; and

a step of applying sufficient pressure to force the film into the micro-embossing pattern and the embossing pattern."

(2) Claim 15 before the Amendment

Claim 15 originally attached to the application, before the Amendment, is as follows.

"A method for producing an embossed thermoplastic polymer film, the method comprising:

a step of advancing a thermoplastic polymer film having a basis weight of about 30 gsm or less between a first embossing roll and a non-embossing counter roll, wherein the first embossing roll comprises at least one micro-embossing pattern suitable to impart a matte finish onto the film; and at least one embossing pattern having a first embossing depth; and

a step of applying sufficient pressure to force the film into the micro-embossing pattern and the embossing pattern."

2. Appropriateness of the Amendment

(1) Addition of new matters

The specification, scope of claims, or drawings (hereinafter referred to as "original description, etc.") originally attached to the present application only describe the impact strength of the thermoplastic polymer film after embossing, and the point added by the Amendment, "thermoplastic polymer film having ... an impact strength of at least about 15 g between a first embossing roll and a non-embossing counter roll," i.e., the point that the thermoplastic film before embossing has an impact strength of at least about 15 g, is not described in the original description.

Since it is unclear how the impact strength of the film changes by being embossed, the point added by the above Amendment cannot be considered to be obvious based on the original description, etc. Therefore, the invention introduces a new technical matter in relation to the technical matters derived from the totality of all statements in the original description, etc. Therefore, the Amendment cannot be said to be made within the scope of the matters described in the original description, etc., and does not meet the requirements stipulated in the Patent Act Article 17-2 (3).

(2) Requirements for independent patentability

Assuming that the Amendment to Claim 15 mentioned above does not correspond to the addition of new matters, the Amendment adds the limitation of "having an impact strength of at least about 15 g" for "a thermoplastic polymer film having a basis weight of about 30 gsm or less," which is necessary for specifying the invention according to Claim 15 before the Amendment. Since the industrial applicability of and the problems to be solved by the invention described in Claim 15 before the amendment are identical to those after the amendment, it corresponds to the purpose of restricting the Scope of Claims in the Patent Act Article 17-2 (5) (ii).

Therefore, whether the invention described in Claim 15 after the amendment (hereinafter referred to as "the Amended Invention") complies with the provision of Article 126, paragraph 7 of the said Act as applied mutatis mutandis in Article 17-2, paragraph 6 (whether the amended invention meets the requirements for independent patentability at the time of filing), will be considered below.

A The Amended Invention

The Amended Invention is as described in 1. (1) above.

B Matters described in cited documents

(A) Cited document 1

a The published Japanese translations of PCT international publication for patent application No. H06-509132 (published on October 13, 1994. Hereinafter referred to as "Cited Document 1"), which is a document made available for public use through distribution and telecommunication lines prior to the priority claim date (hereinafter referred to as "Priority Date.") of the present application cited on the grounds of refusal of original assessment, contains the following description along with drawings.

"The thermoplastic film 11 is generally a polyolefin film, such as polyethylene." (page 3, upper right section, lines 12 to 14)

“The film 11 passes downwardly between spaced apart opposed heaters 14 and 15. The heaters 14 and 15 raise the temperature of the film 11 above its softening point. The heat softened film 11 then passes into a nip 17 formed by a metal embossing roll 18 and a backup roll 19 covered with an outer layer of a resilient material, such as a rubber or rubber like material. In the present embodiment, the embossed macro and micro patterns are imparted as the film 11 passes between the rolls 18 and 19 to generate a deep embossed thermoplastic film 20, according to the present invention." (Page 3, upper right section, line 16 to lower left column, line 1)

"For many applications, including diaper liners, 1 mil is a preferred thickness of the unembossed film 10." (Page 3, lower left section, lines 12 to 14)

"In the embodiment in Fig. 3, a first plurality of random micro depressions 24 are provided in the areas of the macro cells 21 and the lands 22. In the present embodiment, referring to Fig. 1, the macro cells 21 are provided by female patterns on the metal embossing roll 18. The first plurality of micro patterns 24 are provided by placing a coarse sandblast pattern on the surface of metal embossing roll 18." (page 3, from bottom left section, line 23 to bottom right section, line 5)

"As shown in Fig. 4, the depth "D" is preferably between 2.5 mil and 15 mil. The depth "D" of film 20, shown in Figs. 3 and 4, is 4 mil." (page 3, bottom right section, lines 10 to 12)

"The second plurality of micro depressions 26 in the present embodiment are randomly placed and are formed by a fine sandblast pattern placed on the metal embossing roll 18. It has been found that the second plurality of micro depressions 26 eliminate the gloss and aid in forming a deep embossed film having an aesthetically pleasing appearance. Preferably, the second plurality of micro depressions 26 are formed by placing a fine sandblasting pattern on the roll 18 having a perthometer measurement of less than 85 micro inches RA and preferably less than 50 micro inches RA."(page 4, upper left section, lines 4 to 14)

"As discussed above, the film 20 is constructed by a one-stage process where all three

patterns are placed on the metal embossing roll 18." (Page 4, upper left section, lines 20 to 23)

"The films 20 and 30 and other embodiments according to the present invention can specifically be used in diaper back sheets, panty liners, and sanitary napkins." (page 4, bottom right section, line 25 to page 5, upper left section, line 3)

"

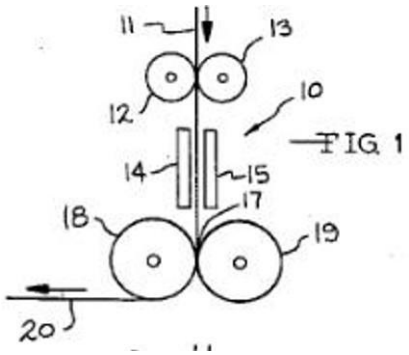

FIG. 1

" (Fig. 1)

"

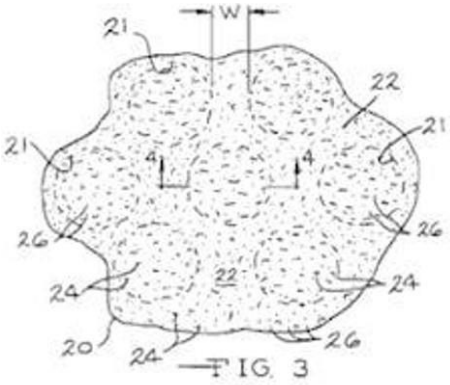

FIG. 3

" (Fig. 3)

"

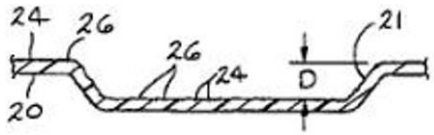

FIG. 4

" (Fig. 4)

b It is clear based on the above mentioned notes and based on Figs. 3 and 4 that the "depth "D"" described in the Cited Document 1 refers to the depth of the macro cell 21.

c Although the Cited Document 1 does not describe the pressure applied to the film 11 from the metal embossing roll 18, the fact that the micro depressions 26 and the macro cell 21 are formed on the film 20 after passing through the rolls, makes it clear that sufficient pressure is applied to force the polyethylene film 11 into a fine sandblast pattern and a female pattern.

d Based on the above a to c, the following invention (hereinafter referred to as "Cited Method Invention") is recognized as described in Cited Document 1.

"A method for producing an embossed polyethylene film 20 used in diaper liners, the method comprising:

a step of passing a 1 mil polyethylene film 11 between a metal embossing roll 18 and a support roll 19 covered with an outer layer formed of an elastic material, wherein the metal embossing roll 18 comprises a fine sandblast pattern or a female pattern; and

a step of applying sufficient pressure to force the polyethylene film 11 into the fine sandblast pattern and the female pattern."

(B) Documents showing common technical knowledge

Japanese Unexamined Patent Application Publication No. S57-205438, which is distributed as a publication or made available for public use over telecommunication lines before the priority date of the present application, contains the following description.

"This invention relates to waterproof films used in diapers, sanitary napkins, and other products dealing with bodily fluids." (Page 1, lower left section, lines 16 to 18)

"In addition, when used in diapers for infants, the film needs to maintain the required strength to make sure that it does not rip when infants fall on their backsides." (Page 1, bottom right section, lines 10 to 13)

"For use as a waterproof film in products dealing with bodily fluids, a film thickness of approximately 8 μ to 30 μ is appropriate." (page 2, bottom right section, lines 4 to 6)

C Comparison with the Cited Method Invention

Comparison between the Amended Invention and the Cited Method Invention.

(a) Since polyethylene is a type of thermoplastic polymer, the "embossed

polyethylene film 20" according to the Cited Method Invention corresponds to the "embossed thermoplastic polymer film" according to the Amended Invention.

(b) The "metal embossing roll 18" and the "support roll 19 covered with an outer layer formed of an elastic material" according to the Cited Method Invention correspond to the "first embossing roll" and the "non-embossing counter roll" according to the Amended Invention, respectively.

(c) Since the Cited Document 1 mentions that "the heat softened film 11 then passes into a nip 17 formed by a metal embossing roll 18 and a backup roll 19...", it is clear that the polyethylene film 11 is being advanced. Therefore, the "step of passing the polyethylene film 11" according to the Cited Method Invention corresponds to the "step of advancing the thermoplastic polymer film" according to the Amended Invention.

(d) As the "micro depressions 26" eliminate the gloss of the polyethylene film, the "fine sandblast pattern" according to the Cited Method Invention corresponds to the "micro-embossing pattern suitable to impart a matte finish onto a thermoplastic polymer film" according to the Amended Invention.

(e) Since it is clear that the female pattern has a predetermined embossing depth to form a "4 mil depth" in the "macro cell 21", the "female pattern forming the macro cell 21 with the 4 mil depth" according to the Cited Method Invention corresponds to "at least one embossing pattern having a first embossing depth" according to the Amended Invention.

Based on the above, the identical features and different features between the Amended Invention and the Cited Method Invention are as given below.

[Identical features]

"A method for producing an embossed thermoplastic polymer film, the method comprising:

a step of advancing a thermoplastic polymer film between a first embossing roll and a non-embossing counter roll, wherein the first embossing roll comprises at least one micro-embossing pattern suitable to impart a matte finish onto the thermoplastic polymer film and at least one embossing pattern having a first embossing depth; and

a step of applying sufficient pressure to force the thermoplastic polymer film into the micro-embossing pattern and the embossing pattern."

[Different feature 1]

Regarding the "thermoplastic polymer film" before embossing, the Amended Invention has "a basis weight of about 30 gsm or less," whereas the Cited Method

Invention does not specify any such composition.

[Different feature 2]

Regarding the "thermoplastic polymer film" before embossing, the Amended Invention has "an impact strength of at least about 15 g," whereas the Cited Method Invention does not specify any such composition.

D Determination by the panel

The different features are considered below.

(a) Different feature 1

In the Cited Method Invention, a 1 mil thick polyethylene film is used as the thermoplastic polymer film. Here, 1 mil is one thousandth of an inch, or 25.4 μm.

Although the Cited Document 1 does not mention the basis weight of the used polyethylene film, with reference to "Chemical Dictionary 8 (compact edition 34, Kyoritsu Shuppan Co. Ltd, published on June 1, 1993)", the density of polyethylene is usually about 0.92 to 0.96, though the distribution depends on the manufacturing method. In the Cited Method Invention, the polyethylene film has a basis weight of about 24.4 gsm (25.4 × 0.96). Since it is within the numerical range according to the Amended Invention, the different feature 1 is not a substantial difference.

Even if the different feature 1 were significant, it was easily conceivable for a person skilled in the art to select a pre-processing film having an appropriate thickness such that the film after embossing would have an appropriate thickness, and selecting the thickness for a film made of a specific material, which is polyethylene, is synonymous with selecting the basis weight. Since the upper limit of "about 30 gsm" as in the Amended Invention of the present application is not recognized as having any exceptional significance of critical range, the different feature 1 is merely a design matter to be determined by a person skilled in the art.

(b) Different feature 2

Although the impact strength of the used polyethylene film is not described in the Cited Document 1, it is common technical knowledge for a person skilled in the art that a film used in diapers is required to be thin and have appropriate strength, as seen in B (b) above. In that case, the Cited Method Invention is also a method to produce diaper films, and it is highly probable that the polyester film 11 has an impact strength of at least about 15 g. Therefore, the different feature 2 is not a substantial difference.

Even if the polyethylene film according to the Cited Method Invention did not have an impact strength of about 15 g, it would have been easy for a person skilled in the

art to select a pre-processing film having an appropriate strength such that the film after embossing could retain an appropriate strength in light of the above common technical knowledge. Since the lower limit of "about 15 g" as in the Amended Invention does not have any exceptional significance of critical range, the different feature 2 is merely a design matter to be appropriately determined by a person skilled in the art.

(c) Even when these different features are comprehensively taken into consideration, the working effects derived from the Amended Invention is within the range expected based on the effect on operation according to the Cited Method Invention and common technical knowledge, and cannot be said to be particularly remarkable.

(d) Consequently, the Amended Invention falls under the Patent Act Article 29 (1) (iii) because it is a Cited Method Invention. Alternatively, a person skilled in the art could have easily invented the same based on the Cited Method Invention. Therefore, the Amended Invention is not patentable independently when filing the patent application under the Patent Act Article 29 (2).

3. Conclusion (Conclusion of the decision to dismiss the amendment)

As described above, the amendment is in violation of the Patent Act Article 17-2 (3) or in violation of the Patent Act Article 126 (7) as applied mutatis mutandis to the Patent Act Article 17-2 (6). Therefore, the amendment should be dismissed under the provision of the Patent Act Article 53 (1) as applied mutatis mutandis pursuant to the Patent Act Article 159 (1) after the deemed replacement of terms.

Therefore, the decision is according to the conclusion of the decision to dismiss the above amendment.

III The claimed invention

1. The claimed invention

Since the written Amendment filed on August 27, 2020 was dismissed as stated above, the claimed invention according to Claims 1 to 15 are specified by the matters described in Claims 1 to 15 originally attached to the application. The invention according to Claim 15 (hereinafter referred to as "claimed invention 15") is found to be as described in 2 [Reasons] 1, as specified by the matters described in the Claim 15, and is. (2) above. In addition, the invention claimed in Claim 1 thereof (hereinafter referred to as "claimed invention 1 ") is as follows, and was not amended in the written Amendment filed on August 27, 2020, which was dismissed.

"[Claim 1]

A thermoplastic polymer film comprising at least one thermoplastic polymer, having a basis weight of about 30 gsm or less and an impact strength of about 15 g, further characterized in that:

at least one portion of said film is micro-embossed with a micro-embossing pattern; and

at least one portion of the film is embossed with a first emboss pattern having a first embossing depth which is greater than the micro-embossing depth."

2. Reasons for refusal in the original examiner's decision

The reason for refusal of the original examiner's decision was that the inventions according to Claims 1-9, 12, 13 and 15 of the application are inventions described in the Cited Document 1, which was made available to the public through distribution or telecommunication lines in Japan or abroad before the priority date of the present application, because of which it falls under the Patent Act Article 29 (1) (iii). Alternatively, a person having common knowledge in the art to which the invention pertains could have easily made the invention based on the invention cited in the Cited Document 1 before the priority date of the application, because of which the patent could not be granted under the Patent Act Article 29 (2).

3. Cited documents

(1) Cited method invention

The Cited Document 1 and the matters mentioned thereof are cited as the reasons for rejection of the original examiner's decision as described in 2 [Reasons] 2. (2) (b) above.

(2) Cited film invention

It has been recognized that the following invention for a film (hereinafter referred to as "Cited Film Invention") produced by the Cited Method Invention has been described in the Cited Document 1.

"An embossed polyethylene film used for diaper liners and such products, wherein at least a part of the polyethylene film is embossed with a fine sandblast pattern smaller than 50 microinches RA, and wherein at least a part of the polyethylene film is embossed with a female pattern forming the macro cell 21 having a depth of 4 mils".

4. Comparison and determination by the panel

(1) The claimed invention

The claimed invention 15, the limitation related to "an impact strength of at least about 15 g" was deleted from the Amended Invention examined in 2 [Reasons] 2. (2).

In that case, the Amended Invention corresponding to all invention-specific matters of the claimed invention 15 and other additional matters is, as described in 2 [Reasons] 2. (2) C and D, either a Cited Method Invention or could have been easily invented by a person skilled in the art based on the Cited Method Invention. Therefore, the claimed invention 15 is also a Cited Method Invention or could have been easily invented by a person skilled in the art based on the Cited Method Invention.

(2) The claimed invention 1

A Comparison

The claimed invention 1 has been compared with the Cited Film Invention.

Considering the corresponding relationship described in 2 [Reasons] 2. (2) C and the fact that the predetermined depth formed in the "female pattern" described in the Cited Document 1 is clearly greater than the depth formed in the fine sandblast pattern, the identical features and different features between the claimed invention 1 and the Cited Film Invention are as given below.

[Identical features]

"A thermoplastic polymer film comprising at least one thermoplastic polymer, further characterized in that:

at least one portion of said film is micro-embossed with a micro-embossing pattern; and

at least one portion of the film is embossed with a first emboss pattern having a first embossing depth which is greater than the micro-embossing depth."

[Different feature 1-1]

Regarding the "thermoplastic polymer film", the claimed invention 1 mentions "a basis weight of about 30 gsm or less", whereas the Cited Film Invention does not specify any such composition.

[Different feature 1-2]

Regarding the "thermoplastic polymer film", the claimed invention 1 mentions "an impact strength of at least about 15 g", whereas the Cited Film Invention does not specify any such composition.

B Determination by the panel

The different features are considered below.

(a) Different feature 1-1

Although the Cited Document 1 mentions the use of a 1 mil (25.4 μm) thick polyethylene film as the thermoplastic polymer film before embossing, the thickness or basis weight of the film after embossing is not mentioned.

However, even if the density and thickness of the film are affected to a certain degree by the embossing process, the basis weight, which is the product of these factors, is not significantly affected and is generally maintained. In that case, as described in 2 [Reasons] 2 (2) (d) above, the basis weight of the pre-embossing polyethylene film according to the Cited Method Invention is about 24.4 gsm at most. As it is highly probable that the basis weight of the embossed Cited Film Invention is included in the numerical value range according to the claimed invention 1, the different feature 1-1 is not a substantial difference.

Even if the polyethylene film according to the Cited Film Invention did not have a basis weight of about 30 gsm or less, it would have been easy for a person skilled in the art to select a film having a thickness that is normally used in light of the common technical knowledge mentioned in 22 (2) B (b). Since the upper limit of "about 30 gsm" according to invention 1 as claimed in the present application does not have any exceptional significance of critical range, the different feature 1-1 is merely a design matter to be appropriately determined by a person skilled in the art.

(b) Different feature 1-2

Although the impact strength of the polyethylene film is not mentioned in the Cited Document 1, as seen in 2 [Reasons] 2 (2) B (b), considering that it is common technical knowledge for a person skilled in the art that a film used in a diaper is required to be thin and have appropriate strength, the Cited Film Invention is also a film for diapers, and thus it is highly probable that it has an impact strength of at least about 15 g. Therefore, the different feature 1-2 is not a substantial difference.

Even if the Cited Film Invention did not have an impact strength of about 15 g, it would have been easy for a person skilled in the art to apply the appropriate strength in light of the common technical knowledge mentioned in 2 2 (2) B (b) above, and the lower limit of "about 15 g" according to the claimed invention 1 does not have exceptional critical significance of critical range. Therefore, the different feature 1-2 is merely a design matter to be appropriately determined by a person skilled in the art.

(c) Even when these different features are comprehensively taken into consideration, the working effects derived from the claimed invention 1 is within the range expected from the working effects derived from to the Cited Film Invention and common technical knowledge, and cannot be said to be particularly remarkable.

(d) Therefore, the claimed invention 1 is either the Cited Film Invention or could have been easily invented by a person skilled in the art based on the Cited Film Invention.

IV Conclusion

As described above, the claimed invention 1 and the claimed invention 15 fall under the Patent Act Article 29 (1) (iii) or are not patentable under the Patent Act Article 29 (2). Therefore, it is not necessary to examine the other claims, and the present application should be rejected.

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

November 10, 2021

Chief administrative judge: OSHIMA, Shogo
Administrative judge: OKUDA, Yusuke
Administrative judge: KATO, Tomoya