

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To: TULLEY, DOUGLAS H. KIMBERLY-CLARK WORLDWIDE, INC. 2300 WINCHESTER ROAD NEENAH WI 54956 USA

Date of mailing (day/month/year) 07 June 2018 (07.06.2018)
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Applicant's or agent's file reference 65031847PC04	FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/US2018/020321	International filing date (day/month/year) 28 February 2018 (28.02.2018)	Priority date(day/month/year) 31 August 2017 (31.08.2017)
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International Patent Classification (IPC) or both national classification and IPC B32B 3/26(2006.01)i, B32B 27/12(2006.01)i, B32B 27/32(2006.01)i, B32B 7/00(2006.01)i
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Applicant KIMBERLY-CLARK WORLDWIDE, INC.
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1. This opinion contains indications relating to the following items:

Box No. I Basis of the opinion

Box No. II Priority

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

Box No. IV Lack of unity of invention

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

Box No. VI Certain documents cited

Box No. VII Certain defects in the international application


Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/KR International Application Division Korean Intellectual Property Office 189 Cheongsa-ro, Seo-gu, Daejeon, 35208, Republic of Korea Facsimile No. +82-42-481-8578	Date of completion of this opinion 07 June 2018 (07.06.2018)	Authorized officer KAM, Yoo Lim Telephone No. +82-42-481-3516	
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2018/020321

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of :
 - the international application in the language in which it was filed
 - a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.I(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13*ter*.I(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13*ter*.I(a)).
 - on paper or in the form of an image file (Rule 13*ter*.I(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2018/020321

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-20</u>	YES
	Claims	<u>NONE</u>	NO
Inventive step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-20</u>	NO
Industrial applicability (IA)	Claims	<u>1-20</u>	YES
	Claims	<u>NONE</u>	NO

2. Citations and explanations :

Reference is made to the following documents:

D1 : US 2002-0065009 A1 (PELKIE, JAMES E.) 30 May 2002

D2 : US 4834741 A (SABEE, REINHARDT N.) 30 May 1989

D3 : US 2017-0087029 A1 (3M INNOVATIVE PROPERTIES COMPANY) 30 March 2017

D4 : US 2008-0128077 A1 (BALDAUF et al.) 05 June 2008

1. Novelty and Inventive Step

1.1 Independent Claim 1

D1, which is considered to be the closest prior art to the subject matter of claim 1, discloses that a laminate (18) comprises a fibrous material (10) attached to a film material (12), wherein the film material has a plurality of interposed first and second segments (no signs) that extend continuously in the machine direction, wherein the second segments of the film material (12) are substantially devoid of apertures (see paragraph [0037] and figure 2).

This claim differs from D1 in that first segments of an elastic film are strewn with irregular, randomly positioned apertures (feature 1) and that a laminate has an air permeability of between about 150-1000 CFM (feature 2). However, the feature 1 would be easily conceived by a person skilled in the art from an aperture (38) in D1 (see paragraph [0039] and figure 2). And the feature 2 would be easily conceived by a person skilled in the art from the disclosure of D1 considering that the laminate (18) has an air permeability of between 12-215 CFM (see paragraph [0064] and table 1).

Accordingly, claim 1 would have been obvious over D1. Therefore, claim 1 does not involve an inventive step under PCT Article 33(3).

1.2 Dependant Claims 2-20

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2018/020321

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The unit of CFM employed in claim 1 is not additionally expressed in terms of the units stipulated by PCT Rule 10.1(a).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2018/020321

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 1 contains a minor typo of “the first segments of elastic film”, which should be corrected as “the second segments of elastic film”, with regard to PCT Article 6.

Claim 1 contains a minor typo of “the second segments of elastic film”, which should be corrected as “the first segments of elastic film”, with regard to PCT Article 6.

Claims 5 and 17 are worded in reference to a first nonwoven web of claim 1. However, said first nonwoven web has not been worded in claim 1. Therefore, claims 5 and 17 do not meet the requirement of PCT Article 6.

Claim 9 is worded in reference to first regions and second regions of claim 1. However, said first regions and second regions have not been worded in claim 1. Therefore, claim 9 does not meet the requirement of PCT Article 6.

Claim 1 relates to a composite elastic material, but claims 4-20 directly or indirectly dependent on claim 1 relates to the composite elastic laminate. As claims 4-20 do not clearly define the matter for which protection is sought, these claims do not meet the requirement of PCT Article 6.

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Continuation of : Box No. V

1.2.1 Concerning Claims 2-3

The additional features of claims 2-3, wherein the laminate has between 0.5 and 14 first segments per cm along the second direction and further wherein the laminate has between 0.5 and 14 segments per cm along the second direction (claim 2) and wherein the laminate has between 1 and 12 first segments per cm along the second direction and further wherein the laminate has between 1 and 12 segments per cm along the second direction (claim 3), are obvious to a person skilled in the art in that the parameter can be optimized by experimental means. Accordingly, claims 2-3 would have been obvious over D1. Therefore, claims 2-3 do not involve an inventive step under PCT Article 33(3).

1.2.2 Concerning Claim 4

The additional feature of claim 4 is identical to the disclosure of D1 in that the fibrous material (10) and the elastomeric film material (12) comprise non-woven polyolefins and polyolefin type materials respectively (see paragraphs [0017], [0030]-[0031]). Accordingly, claim 4 would have been obvious over D1. Therefore, claim 4 does not involve an inventive step under PCT Article 33(3).

1.2.3 Concerning Claim 5

The additional feature of claim 5, wherein the first nonwoven web has gathers extending across said first and second segments, is not disclosed in D1. However, this feature would be easily conceived by a person skilled in the art from the disclosure of D2 considering that the web has shirrs, gathers, or puckers (see column 2, lines 38-43). As D1 and D2 are in the same technical field, it is considered that a skilled person would be motivated to combine the features of D2 with D1.

Accordingly, this claim would have been obvious over D1 in view of D2. Therefore, claim 5 does not involve an inventive step under PCT Article 33(3).

1.2.4 Concerning Claims 6-7

The additional features of claims 6-7, wherein the first and second segments extend a length in the second direction between 2 mm and 20 mm (claim 6) and wherein the elastic laminate has a percent extension of between about 75% and about 260% at an extension force of 2000 g-f (claim 7), are obvious to a person skilled in the art in that the parameter can be optimized by experimental means. Accordingly, claims 6-7 would have been obvious over D1. Therefore, claims 6-7 do not involve an inventive step under PCT Article 33(3).

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1.2.5 Concerning Claims 8-9

The additional features of claims 8-9, wherein the elastic film extends continuously across at least about 75% of the length of the laminate in the second direction (claim 8) and wherein the first regions extend continuously along the length of the laminate in the first direction and further wherein the second regions extend continuously along at least 80% of the length of the laminate in the first direction (claim 9), are obvious to a person skilled in the art in that the parameter can be optimized by experimental means. Accordingly, claims 8-9 would have been obvious over D1. Therefore, claims 8-9 do not involve an inventive step under PCT Article 33(3).

1.2.6 Concerning Claim 10

The additional feature of claim 10 is identical to the disclosure of D1 in that the fibrous material (10) comprises a non-woven web and that the first surface (40) of the carrier material (10) is adhered to the top planar surface (14) of the elastomeric film (12) (see paragraphs [0017], [0062]). Accordingly, claim 10 would have been obvious over D1. Therefore, claim 10 does not involve an inventive step under PCT Article 33(3).

1.2.7 Concerning Claim 11

The additional feature of claim 11, characterized in that the composite elastic material further comprises a second fabric comprising a nonwoven web and that the film is positioned between the first and second fabrics, is not disclosed in D1. However, this feature would be easily conceived by a person skilled in the art from the disclosure of D3 considering that a second nonwoven web (124) is laminated to the second surface (115) of the film (112) at the multiple weld sites (117) (see paragraph [0077] and figure 3A). As D1 and D3 are in the same technical field, it is considered that a skilled person would be motivated to combine the features of D3 with D1.

Accordingly, this claim would have been obvious over D1 in view of D3. Therefore, claim 11 does not involve an inventive step under PCT Article 33(3).

1.2.8 Concerning Claim 12

The additional feature of claim 12 is characterized in that the first and second fabrics have gathers extending across the first and second regions of the film (feature 1) and that the film is bonded to both the first and second fabrics (feature 2). The feature 1 is not disclosed in D1 or D3. However, this feature 1 would be easily conceived by a person skilled in the art from the disclosure of D2 considering that the web has shirrs, gathers, or puckers (see column 2, lines 38-43). And the feature 2 is identical to the disclosure of

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Supplemental Box

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D3 in that the two nonwoven webs may be directly bonded to each other through the weld sites (see paragraph [0027]). As D1 and D3 and D2 are in the same technical field, it is considered that a skilled person would be motivated to combine the features of D2 with D1 and D3.

Accordingly, this claim would have been obvious over D1-D3. Therefore, claim 12 does not involve an inventive step under PCT Article 33(3).

1.2.9 Concerning Claim 13

The additional feature of claim 13 is characterized in that the laminate has a basis weight less than about 60g/m^2 (feature 1) and that the elastic film comprises between about 10 to about 40% of the basis weight of the laminate and the laminate has a percent stretch of between about 80% and 250% at $2000\text{g}\cdot\text{f}$ (feature 2). The feature 1 would be easily conceived by a person skilled in the art from the disclosure of D1 considering that the laminate has a basis weight of between 18 – 31 gsm (see table 1). And the feature 2 is obvious to a person skilled in the art in that the parameter can be optimized by experimental means. Accordingly, claim 13 would have been obvious over D1 in view of D3. Therefore, claim 13 does not involve an inventive step under PCT Article 33(3).

1.2.10 Concerning Claim 14

The additional feature of claim 14 is identical to the disclosure of D1 in that the elastomeric materials which are useful include polyolefin type materials such as polyethylene elastomers, and polyurethane films (see paragraph [0031]). Accordingly, claim 14 would have been obvious over D1 in view of D3. Therefore, claim 14 does not involve an inventive step under PCT Article 33(3).

1.2.11 Concerning Claim 15

The additional feature of claim 15, wherein the laminate has a basis weight, in an untensioned state, of between 15 and about 60g/m^2 and further wherein the film comprises between about 10% and about 40% by weight of the laminate, is obvious to a person skilled in the art in that the parameter can be optimized by experimental means. Accordingly, claim 15 would have been obvious over D1. Therefore, claim 15 does not involve an inventive step under PCT Article 33(3).

1.2.12 Concerning Claim 16

The additional feature of claim 16, wherein the laminate has a percent stretch of between about 80% and 260% at $2000\text{ g}\cdot\text{f}$, is obvious to a person skilled in the art in that the

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parameter can be optimized by experimental means. Accordingly, claim 16 would have been obvious over D1 in view of D3. Therefore, claim 16 does not involve an inventive step under PCT Article 33(3).

1.2.13 Concerning Claim 17

The additional feature of claim 17 is characterized in that the film predominantly comprises olefin elastomer and the first nonwoven web comprises fibers comprising a first olefin polymer (feature 1) and that the Vicat softening point of the film is lower than the Vicat softening point of the fibers (feature 2). The feature 1 is identical to the disclosure of D1 in that the elastomeric materials which are useful include polyolefin type materials such as polyethylene elastomers, and polyurethane films and that the fibrous material comprises non-woven polyolefins (see paragraphs [0017], [0030]-[0031]). And the feature 2 is obvious to a person skilled in the art in that the parameter can be optimized by experimental means. Accordingly, claim 17 would have been obvious over D1. Therefore, claim 17 does not involve an inventive step under PCT Article 33(3).

1.2.14 Concerning Claim 18

The additional feature of claim 18, wherein the first segments of the film have a plurality of micro-furrows substantially aligned with the first direction, is not disclosed in D1. However, this feature would be easily conceived by a person skilled in the art from the disclosure of D2 considering that the web has shirrs, gathers, or puckers (see column 2, lines 38-43). As D1 and D2 are in the same technical field, it is considered that a skilled person would be motivated to combine the features of D2 with D1.

Accordingly, this claim would have been obvious over D1 in view of D2. Therefore, claim 18 does not involve an inventive step under PCT Article 33(3).

1.2.15 Concerning Claim 19

The additional feature of claim 19, wherein the laminate is elastic in the first direction and inelastic in the second direction, is not disclosed in D1. However, this feature would be easily conceived by a person skilled in the art from the disclosure of D4 considering that the laminate material web is elastic in the regions of the laminate strips, crosswise to their longitudinal direction, and non-elastic between the laminate strips (see paragraph [0007]). As D1 and D4 are in the same technical field, it is considered that a skilled person would be motivated to combine the features of D4 with D1. Accordingly, this claim would have been obvious over D1 in view of D4. Therefore, claim 19 does not involve an inventive step under PCT Article 33(3).

Continued on The Next Page

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1.2.16 Concerning Claim 20

The additional feature of claim 20, wherein the second segments of the film have a plurality of puckers that are substantially aligned with the second direction, is not disclosed in D1. However, this feature would be easily conceived by a person skilled in the art from the disclosure of D2 considering that the web has shirrs, gathers, or puckers (see column 2, lines 38-43). As D1 and D2 are in the same technical field, it is considered that a skilled person would be motivated to combine the features of D2 with D1.

Accordingly, this claim would have been obvious over D1 in view of D2. Therefore, claim 20 does not involve an inventive step under PCT Article 33(3).

2. Industrial Applicability

Claims 1-20 meet the requirements of industrial applicability under PCT Article 33(4).