

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

Applicant's or agent's file reference 217362PCWO	FOR FURTHER ACTION See item 4 below	
International application No. PCT/CN2021/129194	International filing date (<i>day/month/year</i>) 08 November 2021 (08.11.2021)	Priority date (<i>day/month/year</i>)
International Patent Classification (IPC) or national classification and IPC See relevant information in Form PCT/ISA/237		
Applicant DOW GLOBAL TECHNOLOGIES LLC		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i>.1(a). 2. This REPORT consists of a total of 5 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																										
3. This report contains indications relating to the following items: <table border="0"> <tr> <td>☒</td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td>☐</td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td>☐</td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td>☐</td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td>☒</td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td>☐</td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td>☐</td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td>☐</td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> 4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44<i>bis</i>.3(c) and 93<i>bis</i>.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44<i>bis</i> .2).			☒	Box No. I	Basis of the report	☐	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 Article 35(2) 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
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	Date of issuance of this report 02 May 2024 (02.05.2024)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Xin Wang e-mail pct.team2@wipo.int

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:

200233

China 435 Guiping Road, Shanghai

SHANGHAI PATENT & TRADEMARK LAW
OFFICE, LLC

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing

(day/month/year)

21 July 2022

Applicant's or agent's file reference

217362PCWO

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/CN2021/129194

International filing date (day/month/year)

08 November 2021

Priority date (day/month/year)

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

B32B 27/12(2006.01)i; B32B 27/40(2006.01)i; C08G 18/10(2006.01)i; C08G 18/46(2006.01)i; C09J
175/04(2006.01)i

Applicant

DOW GLOBAL TECHNOLOGIES LLC et al

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/

**National Intellectual Property
Administration, PRC
China 6, Xitucheng Rd., Jimen Bridge,
Haidian District, Beijing 100088**

Date of completion of this opinion

15 July 2022

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/CN2021/129194

Box No. I

Basis of the 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 43bis.1(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 13ter.1(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 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(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/CN2021/129194

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**

1. Statement

Novelty (N)	Claims	1-13	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-13	NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims	None	NO

2. Citations and explanations:

[1] Reference is made to the following document:

[2] D1: WO 2021/133475A1

[3] D1 (see the claims 1-4, description from [0005] to [0070]) is regarded as the closest prior art to this invention. It discloses a process for preparing a zipper pouch, wherein the process comprises A) forming a first laminate by a process comprising i) bringing together a polyisocyanate component and a polyol component to form an adhesive composition, wherein the polyisocyanate component comprises a polyisocyanate prepolymer, and wherein the polyol component comprises a phosphate functional compound, wherein the adhesive composition comprises zero to 10% by weight, based on the weight of the adhesive composition, of solvent, wherein the adhesive composition comprises zero to 0.01% by weight, based on the weight of the adhesive composition, of silane compounds, ii) applying a layer of the adhesive composition to a layer of polyethylene terephthalate, iii) then contacting the layer of the adhesive composition with a layer of polyethylene having thickness of 80 micrometer or more, B) contacting a polymeric zipper construction to the first laminate at temperature of 200°C or higher.

[4] Novelty:

[5] Claim 1 differs from D1 in that: wherein the concentration of fatty acids or fatty acid derivatives in the metalized PE-based film is less than 300ppm, based on the total weight of the metalized PE-based film; wherein the polyester polyol component has about 40wt%-60 wt % of aromatic rings in the backbone, based on the total weight of the polyester polyol and a molecular weight (Mw) between 5,000 and 50,000; and wherein the weight ratio of the polyester polyol component to the polyisocyanate component is from 100: 5 to 100: 30. So claim 1 is new and meets the requirement of Article 33(2) of PCT.

[6] As claim 1 is new, its dependent claims 2-11 are new accordingly and meet the requirement of Article 33(2) of PCT.

[7] As any one of claims 1-11 is new, the claims 12 and 13 comprising the multilayer structure of any of the preceding claims are new accordingly and meet the requirement of Article 33(2) of PCT.

[8] Inventive step:

[9] Claim 1: Claim 1 differs from D1 in that, but the distinguishing technical features are the common knowledge of the art to a person skilled in the art. In the actual production and use process, those skilled in the art can select specific details such as concentration and molecular weight, etc. according to factors such as production cost, product performance needs and other factors. Hence, the technical solution defined by claim 1 does not involve an inventive step in the sense of PCT Article 33(3).

[10] Claims 2-11: The additional features of claims 2-11 are the common knowledge of the art to a person skilled in the art. Hence, the technical solutions defined by claims 2-11 do not involve an inventive step in the sense of PCT Article 33(3).

[11] Claim 12: Claim 12 differs from D1 in that: any one of claims 1-11. But any one of claims 1-11 does not involve an inventive, the technical solution defined by claim 12 does not involve an inventive step in the sense of PCT Article 33(3).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

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Box No. V

**Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability;
citations and explanations supporting such statement**

- [12] Claim 13: The difference between claim 13 and D1 is the same as that between claim 1 and D1. For the same reason, the technical solution defined by claim 13 does not involve an inventive step in the sense of PCT Article 33(3).
- [13] Industrial applicability
- [14] The subject matters of claims 1-13 meet the criteria of PCT Article 33(4) because they can be used or made in industry.