

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
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Applicant's or agent's file reference
N2018634

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IN2019/050844

International filing date (day/month/year)
15-11-2019

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26-11-2018

International Patent Classification (IPC) or both national classification and IPC
C09D133/12 Version=2020.01

Applicant
BANDYOPADHYAY, ARKASISH , SAINT-GOBAIN GLASS FRANCE

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. I(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/
Indian Patent Office
Plot No. 32, Sector 14,
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Date of completion of this opinion
07-01-2020

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WRITTEN OPINION OF THE
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International application No.
PCT/IN2019/050844

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*.1(b)).
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*.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 13*ter*.1(a)).
 - on paper or in the form of an image file (Rule 13*ter*.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/IN2019/050844
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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	1-16	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims	NONE	NO

2. Citations and explanations:

Reference is made to the following documents:

- D1: US8080299B2, DOW GLOBAL TECHNOLOGIES LLC; 20-12-2011 (20 DEC 2011).
 D2: CN102153899A, CHUANGXING FINE CHEMICAL SHANGHAI CO LTD; 17-08-2011 (17 AUG 2011)
 D3: CN107446487B, MAANSHAN BONO ENVIRONMENTAL PROTECTION TECH CO LTD; 22-09-2017 (22 SEP 2017)

The present application relates to lacquer composition for glass substrates that is devoid of any organic solvent and a method of making a lacquered glass thereof.

D1 discloses a composition for protective coating of window glass, wherein the composition comprises resin (page 6; column 3, lines 55-65 to column 4 lines 1-10) selected from at least one functional group capable of polymerization i.e urethane acrylates, epoxy acrylates, etc.

Further D1 (page 9; column 10, lines 58-65) discloses filler selected from silicates, aluminas, Zirconias, carbides, combinations thereof which is similar to glass beads disclosed in the present application. D1 (page 10; column 11, lines 55-67 to column 12, lines 1-5) also discloses that pigment may be organic or inorganic that are selected from Titania (TiO₂), zinc oxide, etc.

D1 also discloses crosslinking agents and polymerization. Furthermore, D1 discloses (page 7; column 6, lines 42 to page 8; column 7, lines 1-10) that adhesion promoter are reaction products of silanes and other intermediates selected from divinyl-diethoxysilane, γ-glycidioxypropyltrimethoxysilane, etc. D1 also discloses that surfactants like defoamers, wetting agents and deaerators.

D1 also discloses (page 19; column 29, lines 20-30) a method of bonding glass or coated plastic, such as a window, to a substrate comprising, applying an adhesive to the surface of the glass or coated plastic along the portion of the glass or coated plastic which is to be bonded to the structure which has the composition of this invention coated thereon. The adhesive is thereafter

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International application No.
PCT/IN2019/050844

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:

1. The term "about" used in present claims is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers, thereby rendering the definition of the subject -a matter of said claims unclear.
2. Claim 16 contradicts with the subject matter of claim 15 since claim 15 is directed towards the restriction of surface area from 10% - 80%, however, claim 16 discloses about the entire surface area.
3. Claim 6 discloses that crosslinker is selected from amine functional moieties, however, the examples specified in the complete specification does not support the above claim. Hence necessary correction is needed.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Continuation of Citation and Explanation (Box5)

contacted with the second substrate such that the adhesive is disposed between the glass or coated plastic and the second Substrate. The adhesive is allowed to cure to form a durable bond between the glass or coated plastic and the Substrate. D1 discloses that coating may be applied to glass in conventional means such as using a brush, roller, sprayed onto the Surface, inkjet printing, Screen printing and the like. D2 discloses ultraviolet-curable water-based colored paint composition which comprises a water-based oligomer containing at least one unsaturated double bond, a water-based medium, a photoinitiator, an optional water-based thermoplastic resin, and pigments. The composition claimed also comprises fillers, dyes. D3 discloses glass lacquers and preparation method thereof and a kind of glass sealing wax. Glass lacquer is obtained by mixing Modified resin, defoaming agent, and wetting agent, leveling agent, thickener, butyl glycol ether, and water.

Novelty under PCT Article 33(2):

None of the cited documents D1-D3 discloses all the claimed components of the present glass coating composition. Hence claims 1-16 are novel.

Inventive step under PCT Article 33(3):

The subject matter of the instant application differs from the closest prior art document D1 with respect to the cross-linker and the aqueous medium.

The problem to be solved by the present application may be regarded as the provision for providing an aqueous composition for coating glass and method for coating the glass.

The solution to the above underlying problem may be considered obvious from the teachings of D1 in combination with document D2 and D3 since the deficiencies of D1 are cured by D2 and D3.

Documents D2 and D3 disclose coating composition comprising water-based components (resin, filler, pigment, crosslinker, etc) which are essential in obtaining high-performance coating with a one-time construction mode.

Since the resin components in document D1 and documents D2-D3 overlap, it would be obvious for a person skilled in the art at the time the invention was made to utilize the concept of aqueous-based composition from D2 and D3 (since it would result in high-performance coating) in the composition of D1 to arrive at the alleged invention without any inventive skill.

Further, in the absence of any comparative data in terms of unexpected effect over the closest prior art documents D1-D3, an inventive step cannot be acknowledged.

Method claims 10-13 also lack inventive step since the claimed process steps are similar to the process steps disclosed in D1 and differs with respect to the process parameters such as the medium of reaction and duration in order to achieve desired thickness and viscosity. However, it is obvious and regular experimentation for a

skilled person to optimize the process conditions to obtain desired end results.
Therefore, the subject-matter of claims 1-16 does not meet the requirements of Article 33(3) of PCT.

Industrial Applicability under PCT Article 33(4):

Claims 1-16 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in the industry.