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Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: NEW PRODUCT

(57) Abstract: The invention provides a method for applying a new form of protective coating to substrates such as pigments, and also the coated substrates obtainable by this method. The coating are characterized by the fact that they impart good chemical resistivity to the substrate whilst also preserving its optical properties.



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INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2020/050262

A. CLASSIFICATION OF SUBJECT MATTER INV. C09C1/64 C09C3/00 C09C3/12 C09C1/62 C09C3/06 ADD.		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) C09C		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, CHEM ABS Data, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2015/013762 A1 (SG VENTURES PTY LTD [AU]; ECKART GMBH [DE]) 5 February 2015 (2015-02-05)	15-24, 42-44, 47-49
Y	page 4, line 4 - page 8, line 19; claims 1-30; examples 1,2 page 20, line 25 - page 25, line 3 -----	1-14
X	CN 106 700 662 A (UNIV ANHUI) 24 May 2017 (2017-05-24)	15-24, 42-44, 47-49
Y	cited in the application the whole document -----	1-14
X	US 2018/021240 A1 (STEIN-HOFMANN SIMONE [DE] ET AL) 25 January 2018 (2018-01-25)	15-24, 42-44, 47-49
Y	paragraphs [0004] - [0007], [0011] - [0013], [0085]; claims 1-20; examples 1-3 -----	1-14
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 27 May 2020	Date of mailing of the international search report 10/08/2020	
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Siebel, Eric	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2020/050262

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-24(completely); 42-44, 47-49(partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-24(completely); 42-44, 47-49(partially)

A method of preparing a coated substrate, the method comprising one or more steps in which an inorganic network former and an organofunctional network former are subjected to a condensation-type reaction in the presence of a product, wherein said product is obtainable by subjecting an inorganic network former and an organofunctional network former to a condensation-type reaction in the presence of the substrate and products obtained by the process, coated substrates, coated pigments and PVD-pigments.

2. claims: 25-41, 45, 46(completely); 42-44, 47-49(partially)

A method comprising applying one or more surface modifiers to a coated substrate as defined in any one of claims 15 to 24 (and preferably as defined in any one of claims 15 to 18, 21 and 24), wherein the substrate is a pigment and a pigment having on its surface (a) an organophosphorous compound and a compatibilizer having a molecular weight of 5000 or less and b) a fatty acid and a compatibilizer having a molecular weight of 5000 or less or c) an organofunctional network former and an organophosphorous compound

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2015013762 A1	05-02-2015	EP 3027691 A1 JP 2016531174 A US 2016168388 A1 WO 2015013762 A1	08-06-2016 06-10-2016 16-06-2016 05-02-2015
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