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Published:

- with international search report (Art. 21(3))
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**WO 2009/117334 A3**

(54) Title: POWDER COATING COMPOSITION FOR METAL DEPOSITION

(57) Abstract: A powder coating composition for coating substrates providing enhanced smoothness of the coatings suitable for vapor metal deposition, the composition comprising an intimate mixture comprising A) 50 to 99 wt% of at least one resin binder selected from the group consisting of polyester resins, epoxy resins, urethane resins, (meth)acrylic resins, silicone resins, fluoro-carbon resins, phenolic resins 8) O to 95 wt% of at least one cross-linking agent, C) 0.1 to 10 wt% of at least one opacifying agent, and D) 0.01 to 20 wt% of at least one coating additive, pigment and/or extender (filler), the wt% are based on the total weight of the powder coating composition; wherein the powder coating composition on curing forms a surface having excellent smoothness suitable for vapor metal deposition and provides a DOI smoothness measurement by an easy and an exacting working procedure.

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2009/037217

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. C09D5/03

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)  
C09D

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 practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y Y A  Y  Y	<p>US 2004/157961 A1 (TULLOS GORDON [US] ET AL) 12 August 2004 (2004-08-12) claims; examples paragraph [0022]</p> <p>-----</p> <p>EP 0 844 286 A (MORTON INT INC [US]) 27 May 1998 (1998-05-27) examples</p> <p>-----</p> <p>WO 02/42384 A (BASF COATINGS AG [DE]; HILGER CHRISTOPHER [DE]; PIONTEK SUSANNE [DE];) 30 May 2002 (2002-05-30) claim 9</p> <p>-----</p>	<p>1-4, 9, 10</p> <p>5</p> <p>6, 7</p> <p>8</p> <p>5</p> <p>6, 7</p>

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 document 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

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- \*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

9 September 2009

Date of mailing of the international search report

23/09/2009

Name and mailing address of the ISA/

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2009/037217

## 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 allsearchable 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.:

### 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: 1-5,9-10

composition, process and substrate coated with epoxy resins  
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2. claims: 6-7. 9-10

composition, process and substrate with insoluble opacifying particles with size between 30 and 1000 nm  
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3. claim: 8

process with mixing, heating, cooling and sieving  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/037217

Patent document cited in search report	A1	Publication date	Patent family member(s)	Publication date
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