

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 October 2007 (18.10.2007)

PCT

(10) International Publication Number
WO 2007/116373 A3

(51) International Patent Classification:
B05D 1/04 (2006.01)

(21) International Application Number:
PCT/IB2007/051279

(22) International Filing Date: 10 April 2007 (10.04.2007)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
RM2006A000210 11 April 2006 (11.04.2006) IT

(71) Applicant (for all designated States except US): **UNIVERSITA DEGLI STUDI DI ROMA "TOR VERGATA"** [IT/IT]; Via Orazio Raimondo 9, I-00173 Roma (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BARLETTA, Massimiliano** [IT/IT]; Università degli Studi di Roma, 'Tor Vergata', Dipartimento di Ingegneria Meccanica, Via del Politecnico 1, I-00133 Rome (IT). **TAGLIAFERRI, Vincenzo** [IT/IT]; Università degli Studi di Roma, 'Tor Vergata', Dipartimento di Ingegneria Meccanica, Via del Politecnico 1, I-00133 Rome (IT).

(74) Agents: **ROMANO, Giuseppe** et al.; Società Italiana Brevetti S.p.A., Piazza di Pietra 39, I-00186 Roma (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

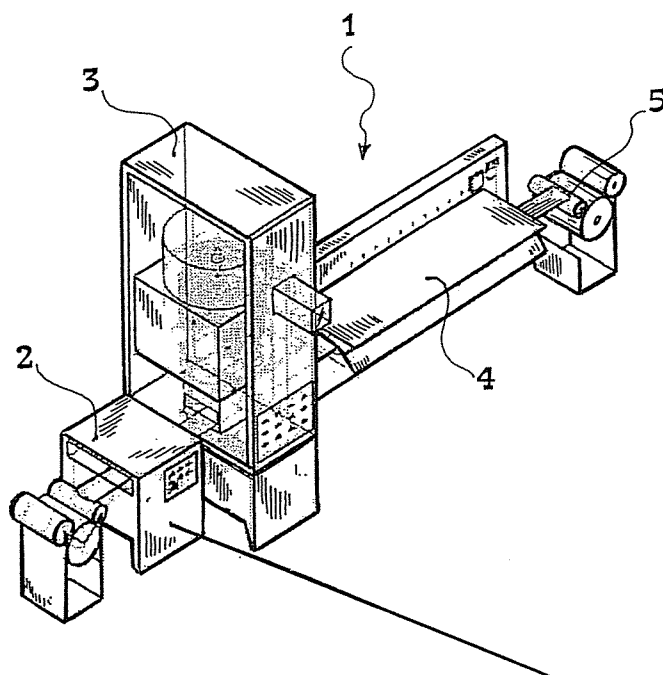
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
31 January 2008

[Continued on next page]

(54) Title: NEW PROCESS FOR THE PRE-TREATMENT OF NON-CONDUCTIVE MATERIAL SUBSTRATES IN PROCESSES FOR POLYMER POWDERS ELECTROSTATIC COATING



(57) Abstract: A process for the electrostatic painting of a surface (or substrate), in particular of non-conductive material, comprises a pre-treatment of the surface or part thereof with a conductive material powder and a subsequent step of electrostatic painting of the pre-treated surface. The invention refers to a related apparatus (1) for the electrostatic painting and to a fluid-bed device (2) for the pre-treatment.

WO 2007/116373 A3



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2007/051279

A. CLASSIFICATION OF SUBJECT MATTER

INV. B05D1/04

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)

B05D B01J F26B 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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 700 280 A (BENZAKI DANIEL [FR]) 13 July 1994 (1994-07-13) page 4 - page 6; claims 1,8,9	1-28
X	EP 0 767 009 A (BAYER AG [DE]) 9 April 1997 (1997-04-09) claim 1; example 1	1
X	US 5 350 603 A (MCFARLAND ROGER A [US] ET AL) 27 September 1994 (1994-09-27) claim 1; figure 1	1
X	US 4 060 647 A (PAN PETER N Y ET AL) 29 November 1977 (1977-11-29) column 2, line 59 - column 6, line 34; claim 1; figure 1	29

☐ 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

"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

19 November 2007

Date of mailing of the International search report

30/11/2007

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Tiercet, Marc

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2007/051279

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 2700280	A	13-07-1994	NONE	
EP 0767009	A	09-04-1997	AT 220351 T BR 9603964 A CA 2186713 A1 CN 1151910 A DE 19536844 C1 DK 767009 T3 ES 2179906 T3 JP 9122571 A SG 43419 A1 US 5792558 A	15-07-2002 09-06-1998 03-04-1997 18-06-1997 10-04-1997 28-10-2002 01-02-2003 13-05-1997 17-10-1997 11-08-1998
US 5350603	A	27-09-1994	NONE	
US 4060647	A	29-11-1977	NONE	