

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 May 2006 (18.05.2006)

PCT

(10) International Publication Number
WO 2006/051574 A3

(51) International Patent Classification:
C04B 24/02 (2006.01) **C04B 40/00** (2006.01)

(21) International Application Number:
PCT/IT2005/000657

(22) International Filing Date:
11 November 2005 (11.11.2005)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
MI2004A002172
12 November 2004 (12.11.2004) IT

(71) Applicant (for all designated States except US): **UNIVERSITA' DEGLI STUDI DI MILANO** [IT/IT]; Via Festa del Perdono, 7, I-20122 Milano (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ROSSI, Michele** [IT/IT]; Via Matteotti, 55, I-20068 Peschiera Borromeo (IT). **PAGLIARO, Mario** [IT/IT]; Piazzale del Fante, 22, I-90146 Palermo (IT). **CIRIMINNA, Rosaria** [IT/IT]; Piazzale del Fante, 22, I-90146 Palermo (IT). **DELLA PINA, Cristina** [IT/IT]; Via Celi, 9, I-54100 Massa (IT). **KESBER, Wladimir** [NL/NL]; Muzenplein 88/89-25, NL-11 Den Haag (NL).

(74) Agents: **LONG, Giorgio** et al.; Jacobacci & Partners S.p.A., Via Senato, 8, I-20121 Milano (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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:
22 June 2006

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.

(54) Title: IMPROVED COMPRESSION STRENGTH CEMENT

(57) Abstract: The present invention relates to the use of raw glycerine as a cement additive in order to improve the compression strength thereof.



WO 2006/051574 A3

INTERNATIONAL SEARCH REPORT

International application No

PCT/IT2005/000657

A. CLASSIFICATION OF SUBJECT MATTER
 INV. C04B24/02 C04B40/00

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)
 C04B

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	US 3 615 785 A (HOWARD H. MOORER ET AL) 26 October 1971 (1971-10-26) the whole document -----	1-13
X,P	WO 2005/037728 A (W. R. GRACE & CO.-CONN; JARDINE, LESLIE, A; CORMAN, CHARLES, R; JACHIM) 28 April 2005 (2005-04-28) the whole document -----	1-5, 10-13
X	US 5 361 841 A (HALE ET AL) 8 November 1994 (1994-11-08) the whole document -----	1-5
X	EP 0 554 046 A (W.R. GRACE & CO.-CONN) 4 August 1993 (1993-08-04) the whole document -----	1
	-/--	

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

11 April 2006

Date of mailing of the international search report

26/04/2006

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

Gattinger, I

INTERNATIONAL SEARCH REPORT

International application No

PCT/IT2005/000657

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 015 440 A (NOUREDDINI ET AL) 18 January 2000 (2000-01-18) the whole document -----	6-9

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IT2005/000657

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3615785	A	26-10-1971	DE 1905187 A1 FR 2001216 A5 GB 1205531 A JP 48042697 B	28-08-1969 26-09-1969 16-09-1970 14-12-1973
WO 2005037728	A	28-04-2005	US 2005072339 A1	07-04-2005
US 5361841	A	08-11-1994	NONE	
EP 0554046	A	04-08-1993	AT 159235 T AU 668701 B2 AU 3111793 A CA 2086648 A1 DE 69314508 D1 DE 69314508 T2 HK 1002255 A1 JP 2788834 B2 JP 6199555 A KR 133274 B1 MX 9300372 A1 NZ 245634 A SG 46202 A1 US 5340385 A	15-11-1997 16-05-1996 29-07-1993 29-07-1993 20-11-1997 23-04-1998 07-08-1998 20-08-1998 19-07-1994 13-04-1998 01-07-1993 28-08-1995 20-02-1998 23-08-1994
US 6015440	A	18-01-2000	US 6174501 B1	16-01-2001