METHOD FOR ESTIMATING PROPERTIES OF CONCRETE

**FIG. 2**

**Abstract:** A method for estimating a property of a concrete comprising the steps of: preparing a mortar mixture that is representative of a cementitious mix used to prepare the concrete; casting the mortar mixture into a sample; equilibrating the sample to selected sets of conditions; calculating a daily weight loss of the sample; and estimating the property of the concrete using an established correlation based on the daily weight loss.
**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**

INV. G01N5/04  G01N33/38

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)

G01N  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 , WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>X</td>
<td>US 6 468 344 BI (LIANG ROLAND TAK YONG  [AU] ET AL) 22 October 2002 (2002-10-22) examples 3-4; table 4 column 5, line 51 - column 7, line 42</td>
<td>1-10</td>
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<td>X</td>
<td>EP 1 148 329 AI (CIMENTES VIGIER SA [CH]) 24 October 2001 (2001-10-24) abstract; figures 1-2 paragraphs [0006], [0009] - [010], [0013]</td>
<td>1,2,6-10</td>
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</table>

X Further documents are listed in the continuation of Box C. X 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
  * "B" 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)
  * "C" 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

**Date of the actual completion of the international search**

12 October 2010

**Date of mailing of the international search report**

22/08/2011

Name and mailing address of the ISA*

European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HN Rijswijk

Tel. (+31-70) 340-2040, Fax (+31-70) 340-2016

Authorized officer

Bockstahl, Frederic

Form PCT/ISA/210 (second sheet) (April 2005)
<table>
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<td>A</td>
<td>US 4 002 713 A (DUNCAN FREDERIC JAMES ET AL) 11 January 1977 (1977-01-11) examples 1-2</td>
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<td>DE 32 37 090 AI (DYCKERHOFF &amp; WIDMANN AG [DE]) 12 April 1984 (1984-04-12) abstract; figure 1 page 8, paragraph 1 - page 10, paragraph 1</td>
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<td>A</td>
<td>JP 2001 289766 A (HAI KO ONODA REMICON KK) 19 October 2001 (2001-10-19) abstract</td>
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</table>
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).

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.:

1-10

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

1. claims: 1-10

   Method of estimating a property of a concrete by establishing a correlation between said property and the daily weight loss.

2. claims: 11, 12

   A method for estimating a slump of a concrete mixture.

3. claim: 13

   A method for estimating a volume yield of a cementitious mixture.
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<td>US 6468344</td>
<td>22-10-2002</td>
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