Title: ABSORBENT ARTICLE, METHOD AND APPARATUS FOR PREPARING SAME

Abstract: An apparatus and a method for preparing an absorbent article is disclosed. The apparatus has at least two forming surfaces which differ in terms of air permeability to allow the selective placement of fibrous material. The forming surface comprises a perforated forming screen. The forming screen has multiple zones with different amounts of open area through which air may pass. Particles carried in the air which flows through the open area are deposited on different zones of the forming screen resulting in different basis weights corresponding to the different air permeabilities. The apparatus and method thus provide an article having optimal zoned absorbency in a cost-effective manner.
(88) Date of publication of the international search report: 27 March 2003

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

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : B29C 59/00; B27N 3/00; A61F 13/15
US CL : 264/121; 156/60,62.2,62.4; 604/385.01

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)
U.S. : 264/112,121; 156/60,62.2,62.4, 62.6, 62.8; 604/385.01,378

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 6,056,854 A (WOODRUM) 02 May 2000 (02.05.2000), column 7, line 55-column 8, line 13.</td>
<td>9-10, 43-44</td>
</tr>
<tr>
<td>X</td>
<td>US 5,891,120 A (CHMIELEWSKI) 05 April 1999 (06.04.1999), column 4, lines 15-50.</td>
<td>70-76, 80-87, 91-95</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,788,684 A (ABUTO et al) 04 August 1998 (04.08.1998), column 7, line 53-column 8, line 5.</td>
<td>78-79, 89-90</td>
</tr>
<tr>
<td>Y,P</td>
<td>US 6,273,978 B1 (TAD) 14 August 2001 (14.08.2001), entire document.</td>
<td>70-95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9-10, 43-44</td>
</tr>
</tbody>
</table>

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 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
  "A" document member of the same patent family

Date of the actual completion of the international search: 26 July 2002 (26.07.2002)

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231
Facsimile No. (703)305-3230

Authorized officer
Lynne Anderson
Telephone No. (703) 305-5716

Form PCT/ISA/210 (second sheet) (July 1998)
### INTERNATIONAL SEARCH REPORT

**C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>US 6,001,911 A (ISHIZAKI et al) 14 December 1999 (14.12.1999), entire document.</td>
<td>70-95</td>
</tr>
<tr>
<td>A</td>
<td>US 5,466,513 A (WANEK et al) 14 November 1995 (14.11.1995), entire document.</td>
<td>70-95</td>
</tr>
</tbody>
</table>