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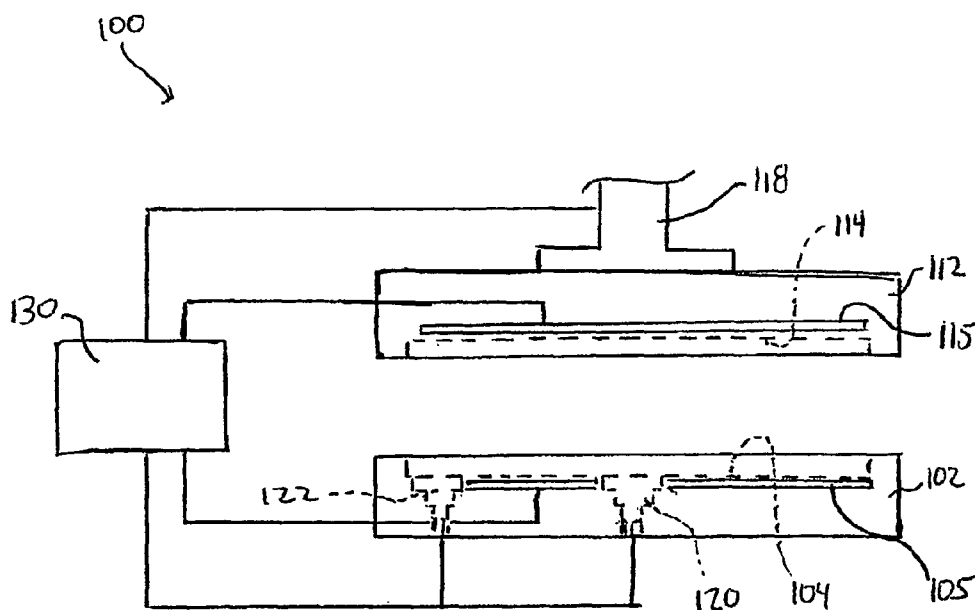
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPRESSION MOLDING METHOD AND APPARATUS SUITABLE FOR MAKING DOOR FACINGS



(57) Abstract: A method for compression molding a thermoset article includes providing first and second movable mold dies providing a mold cavity. A thermosettable workpiece is placed on the first mold die. The workpiece is heated to a gel. At least one of the mold dies is moved toward the other to compress the workpiece between first and second die surfaces. A first mold clamp pressure is applied to the workpiece at a predetermined pressurization to shape the workpiece. The workpiece is cured into a thermoset article. An electrical property of the workpiece is measured as a function of time. A gelation period during which the electrical property changes in value until reaching a turning point corresponding to a gelation peak value is detected. A gelation peak time of the workpiece is determined, the gelation peak time coinciding with the gelation peak value.

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INTERNATIONAL SEARCH REPORT

International Application No
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A. CLASSIFICATION OF SUBJECT MATTER
 B27N3/08 B29C43/00 B29C43/58 B29C35/02
 //B27D3/00

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)
 B27N B27D B29C

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, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 773 021 A (HARRIS ET AL) 20 September 1988 (1988-09-20) column 3, line 20 - column 4, line 62; figures	1-39
A	----- US 2002/129718 A1 (AVERY RAGNAR RICHARD ET AL) 19 September 2002 (2002-09-19) paragraph [0028] - paragraph [0044]; figure; examples; tables	1-39
A	----- PATENT ABSTRACTS OF JAPAN vol. 009, no. 164 (M-395), 10 July 1985 (1985-07-10) & JP 60 038117 A (INA SEITOU KK), 27 February 1985 (1985-02-27) abstract	1, 17, 32, 36
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Further documents are listed in the continuation of box C.

Patent family members are listed in 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)
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- "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

9 September 2005

Date of mailing of the international search report

05. 12. 2005

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2005/014964

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 010, no. 086 (P-443), 4 April 1986 (1986-04-04) & JP 60 224052 A (KOGYO GIJUTSUIN; others: OJ), 8 November 1985 (1985-11-08) abstract	1,17,32, 36
A	----- PATENT ABSTRACTS OF JAPAN vol. 1998, no. 02, 30 January 1998 (1998-01-30) & JP 09 267347 A (AKEBONO BRAKE IND CO LTD), 14 October 1997 (1997-10-14) abstract	1,14,17
A	----- PATENT ABSTRACTS OF JAPAN vol. 1998, no. 03, 27 February 1998 (1998-02-27) & JP 09 286032 A (HITACHI LTD), 4 November 1997 (1997-11-04) abstract	1,17,32, 36
A	----- US 3 888 715 A (FRASER ET AL) 10 June 1975 (1975-06-10) column 4, line 45 - column 6, line 33; figures column 7, line 41 - column 8, line 14; figures 10,11	1,17
A	----- US 5 454 304 A (BIELFELDT ET AL) 3 October 1995 (1995-10-03) column 9, line 14 - line 46; figures	1,17,32, 36
A	----- US 5 032 525 A (LEE ET AL) 16 July 1991 (1991-07-16) column 5, line 42 - column 7, line 35; figures	1,17,32, 36

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/014964

Box 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 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 all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

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.:

1-39

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- 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: 1-39

Compression moulding thermoset articles

2. claim: 40

Sensor assembly

3. claim: 41

Door skin

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/US2005/014964

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