

Title (en)
Method and apparatus for manufacturing moulded articles

Title (de)
Verfahren und Vorrichtung zur Herstellung von Formteilen

Title (fr)
Procédé et dispositif pour fabriquer des articles moulés

Publication
EP 0908281 A1 19990414 (DE)

Application
EP 97117550 A 19971010

Priority
EP 97117550 A 19971010

Abstract (en)
The material mixture is within an enclosed press mold (9), compressed in two stroke movements. During the first stroke, the mold (9) is closed so that the mixture is lightly compressed and, in the second stroke, is fully compressed. In an Independent claim the press has a long tube (1) containing a press piston (2) with a longitudinal movement within it. A radial filling opening (3) is at the press mold (9), together with a number of other openings (5) to deliver hot gas or steam into the mold from at least one reservoir collection channel (6). The movements of the press piston (2) are controlled to give a light pressure stroke followed by a higher pressure stroke. The hot gas or steam is fed into the press mold after the first press stroke movement. After the second press stroke, the compressed material temp. is raised additionally by a heater (7). The press assembly is aligned at an angle or vertically. The press piston (2) is hollow, with a tubular extension into the press zone, and a feed channel at its trailing end for hot gas or steam and vapor escape openings at the leading end. The press piston has a structured surface (8) towards the compression zone of the mold. The filling system has a filling shaft (4), parallel to the press mold, with its lower section open to the press stroke zone and a horizontal filling plunger sliding towards the stroke movement zone of the press mold.

Abstract (de)
Die Erfindung befaßt sich mit einem Verfahren zur Herstellung von Formteilen aus einem nicht fließfähigen Gemisch von Span- und/oder Faserstoffen und wärmehärtbaren Bindemitteln. Das Gemisch wird in einer Presse mit einer allseitig geschlossenen Preßform (9) fertig gepreßt und ausgehärtet. Ein Teil der zum Aushärten benötigten Wärmeenergie wird während des Pressens durch in das Gemisch eingeführte heiße Gase oder Dämpfe aufgebracht. Das Gemisch wird durch wenigstens zwei Preßhübe gepreßt. Beim ersten Preßhub wird die Preßform (9) geschlossen oder das Gemisch gering verdichtet. Beim zweiten Preßhub wird das Gemisch fertig gepreßt. <IMAGE>

IPC 1-7
B27N 3/08; **B27N 3/28**; **B30B 11/26**

IPC 8 full level
B29C 33/04 (2006.01); **B27N 3/08** (2006.01); **B27N 3/28** (2006.01); **B29C 43/14** (2006.01); **B29C 43/34** (2006.01); **B29C 43/44** (2006.01); **B29C 43/52** (2006.01); **B30B 11/26** (2006.01); **B29K 101/10** (2006.01); **B29K 105/06** (2006.01)

CPC (source: EP US)
B27N 3/086 (2013.01 - EP US); **B27N 3/28** (2013.01 - EP US); **B30B 11/265** (2013.01 - EP US)

Citation (search report)

- [A] EP 0376175 A2 19900704 - SCHEDLBAUER KARL
- [A] EP 0573695 A1 19931215 - BIRJUKOV MIKHAIL VASILIEVICH [RU]
- [A] DE 918977 C 19541007 - BUCKAU WOLF MASCHF R
- [A] EP 0339495 A2 19891102 - SCHEDLBAUER KARL
- [DA] EP 0443053 A1 19910828 - WERZALIT AG & CO [DE]

Cited by
DE102004010461A1; EP1752268A3; CN103659987A; EP1752267A3; EP1925413A3; EP2425947A3; EP2425947A2; US8052842B2; WO0040384A1; WO2009094011A1; US10414064B1; US11192274B2; EP1752267A2; US6479002B1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB IE IT LI NL PT SE

DOCDB simple family (publication)
EP 0908281 A1 19990414; **EP 0908281 B1 20040602**; AT E268252 T1 20040615; DE 59711690 D1 20040708; ES 2222492 T3 20050201; JP H11188749 A 19990713; US 5972262 A 19991026

DOCDB simple family (application)
EP 97117550 A 19971010; AT 97117550 T 19971010; DE 59711690 T 19971010; ES 97117550 T 19971010; JP 28778298 A 19981009; US 13991198 A 19980826