

## Title (en)

Method and apparatus for making chipboard.

## Title (de)

Verfahren und Anlage zur Herstellung einer Holzwerkstoffplatte.

## Title (fr)

Procédé et dispositif pour la fabrication de panneaux de particules de bois.

## Publication

**EP 0172930 A1 19860305 (DE)**

## Application

**EP 84110158 A 19840825**

## Priority

- EP 84110158 A 19840825
- US 57678684 A 19840203
- US 59959984 A 19840413

## Abstract (en)

1. A process for the manufacture of a woodbased board from compressible matting (10) that consists of chip and/or fibre material and a hardenable binder, e.g. a synthetic resin binder, by pressing for a specified pressure period that is subdivided into several portions of the pressure period, and hardening by means of steam between heated press platens (1, 2) of a platenpress, which press platens (1, 2) have an equipment (4) to introduce steam from a steam producer (3) and, distributed over their matting compression surfaces, have a plurality of steam apertures (8, 9) from which the steam can emerge, in which the matting (10) is fed between the press platens (1, 2) and subsequently, in a preliminary-compression stage (t0 t1 ) of the compression period, the press platens are moved together, causing preliminary compression of the matting, until the platens reach a preliminary compression position in which, during a steam-treatment period (t1 t4 ), the steam is introduced through the steam apertures (8, 9) of both press platens (1, 2) into the matting (10), in which furthermore during a final-compression stage (t3 tx ) of the compression period and with further compression of the matting (10) the press platens (1, 2) are moved together into a final position to define the thickness of the wood-based board, and, in this final position of the press platens (1, 2), the finally-compressed matting (10) is hardened for a further stage (t5 t6 ) of the compression period, without the introduction of any more steam, characterized in that the steam-treatment period (t1 t4 ) is interrupted by a flushing stage (t2 t3 ) of the compression period, in which the steam emerges from the steam apertures (9) of one of the press platens (2), flows through the pre-compressed matting (10) in the direction of its thickness, and is drawn away through the steam apertures (8) of the other press platen (1) which has been disconnected from the steam producer (3), that following this the press platens (1, 2) are moved into the final position and the supply of steam to the finally-compressed matting (10) is continued through the steam apertures (8, 9) of both press platens for the remainder of the steam-treatment period (t1 t4 ) and that afterwards during the final stage (t5 t6 ) of the compression period, the matting (10) is submitted to the action of a negative pressure via at least one of the two press platens (1, 2) and their steam apertures (8, 9) and by this means is dried, for which purpose the equipment (4) for the introduction of steam is connected to a source of negative pressure (instead of to the steam producer).

## Abstract (de)

Verfahren zur Herstellung einer Holzwerkstoffplatte aus einer Preßgutmatte, die aus Span- und/oder Fasermaterial und einem Bindemittel aufgebaut ist, durch Pressen über eine vorgegebene, in mehrere Preßzeitabschnitte unterteilte Preßzeit und Aushärten mittels Wasserdampf zwischen beheizten Pressenplatten (1, 2) einer Plattenpresse. Die Pressenplatten weisen eine Einrichtung (4) für die Zuführung von Wasserdampf eines Wasserdampferzeugers sowie preßgutmattenseitig eine Vielzahl von über die Presse verteilten Dampföffnungen (8, 9) auf, aus denen der Wasserdampf austreten kann. Die Preßgutmatte (10) wird zwischen die Pressenplatte eingebracht. Die Pressenplatten werden danach unter Vorverdichtung der Preßgutmatte in einem ersten Vorverdichtungs-Preßzeitabschnitt bis in eine Vorverdichtungsposition zusammengefahren, wobei danach der Wasserdampf während Dämpfungszeitabschnittes durch die Dampföffnungen beider Pressenplatten in die Preßgutmatte eingeführt wird. In einem Endverdichtungs-Preßzeitabschnitt wird die Pressenplatte unter weiterer Vorverdichtung der Preßgutmatte in eine die Holzwerkstoffplattendicke definierende Endposition zusammengefahren. Die Preßgutmatte wird bei dieser Endposition der Pressenplatten in einem letzten Preßzeitabschnitt ohne weitere Wasserdampfzuführung ausgehärtet und getrocknet durch die Einwirkung eines Unterdruckes.

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- [A] DE 2742250 A1 19780330 - HAWKER SIDDELEY CANADA LTD
- [A] US 3891738 A 19750624 - SHEN KUO-CHENG
- [A] DE 1947601 A1 19700402 - NIKEX NEHEZIPARI KULKERE
- [A] DE 1201046 B 19650916 - MAX HIMMELHEBER DIPL ING
- [AD] US 4393019 A 19830712 - GEIMER ROBERT L
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