Title (en)

PROCESS AND DEVICE FOR PRODUCING MULTI-LAYERED, FIBRE-REINFORCED PLASTER PLATES.

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON MEHRSCHICHTIGEN FASERVERSTÄRKTEN GIPSPLATTEN.

Title (fr)

PROCEDE ET DISPOSITIF DE FABRICATION DE CARREAUX DE PLATRE A COUCHES MULTIPLES RENFORCES PAR DES FIBRES.

Publication

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Application

EP 92917577 A 19920820

Priority

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- DE 4127930 A 19910823
- DE 4127932 A 19910823
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Abstract (en)

[origin: DE4127932A1] A method is disclosed for the continuous mfr. of fibre-reinforced plasterboard from plaster of Paris and reinforcement fibres by a single-stage filtration process. A dilute slurry of gypsum and lignocellulose-contg. fibres is distributed, optionally with additives, on a water-permeable conveyor belt. The excess water is removed by reduced suction to form a filter cake, which is further dewatered by mechanical pressure and finally dried by heating. Dewatering takes place in at least two separate lines on substantially identical devices running countercurrent to each other. At least two of the dewatered gypsum layers are placed flat on each other and joined to other during the subsequent course of the process, before the gypsum starts to set. The installation comprises: a unit for producing dried gypsum; a unit for producing a suspension of waste paper fibres; a volumetric metering device for the fibres; a downstream device for mechanically dewatering the suspension; a device for diluting the dewatered fibre suspension again; at least one continuous gypsum metering unit; at least one continuous mixer for the fibre suspension, water gypsum and optionally the additives. At least two distributor units are used for the gypsum/fibre suspension; and at least two dewatering screen belts with at least two dewatering suction devices are disposed underneath. Opt. one or more auxiliary dewatering devices; and one or more devices for spreading and/or pre-densifying a dry layer; and a continuous press; are included. A unit is used for trimming, cutting, setting, drying, grinding and optionally impregnating, stacking and packing the boards. USE/ADVANTAGE - Used for mfg. sandwich-type plasterboard or structural board. The invention claims to be a unique combination of various process stages which overcome the disadvantages of the conventional wet and dry-screen processes, producing good quality plasterboard at high output.

Abstract (fr)

On produit des carreaux de plâtre renforcés par des fibres selon un procédé de filtration en continu à couches multiples. A cet effet, on déshydrate sur au moins deux tamis sans fin une suspension de plâtre et de fibres préparées par voie humide, de préférence à partir de vieux papiers. Au moins deux couches sont générées dans des unités de filtrage essentiellement identiques fonctionnant en sens contraire. On renverse ensuite les couches, de sorte que leurs faces supérieures soient en vis-à-vis. Lorsque l'on travaille avec trois couches, la couche centrale peut être composée d'un matériau dispersible contenant un liant. L'invention concerne plusieurs dispositifs et configurations permettant de mettre en oeuvre le procédé.

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IPC 8 full level

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Citation (search report)

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