

Title (en)

MINERALIZING OF WOOD OR WOODEN MATERIAL USING CALCIUM ACETATE

Title (de)

MINERALISIERUNG VON HOLZ ODER HOLZWERKSTOFF UNTER VERWENDUNG VON CALCIUMACETAT

Title (fr)

MINÉRALISATION DU BOIS OU DE MATÉRIAU EN BOIS À L'AIDE D'ACÉTATE DE CALCIUM

Publication

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Application

EP 21169977 A 20210422

Priority

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Abstract (en)

[origin: EP3900902A1] Provided is a method for mineralizing wood and wooden material comprising: i) a first impregnation step, comprising a first impregnation of wood or wooden material with an aqueous solution of potassium oxalate, ii) a first drying step, comprising drying of the wood or wooden material, iii) a second impregnation step, comprising a second impregnation of wood or wooden material with an aqueous solution of calcium acetate iv) a second drying step, comprising drying of the wood or wooden material. Due to the novel mineralization method, the water insoluble products of the impregnation steps penetrate the material deeply and are generated in situ within the cells themselves, in the cell walls and pits and between the xylem cells (primarily fibers and sklereids). The mineralized products are moisture and weather resistant, including under very humid conditions, and exhibit reduced flammability. The products are non-toxic and environmentally safe.

IPC 8 full level

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