



Title

COMPOSITE PLATES OF NATURAL FIBERS AND PROCESS USED FOR OBTAINING IT



Inventor/s - Contact

1. Florea Iacob, PhD student at Faculty of Civil Engineering, Technical University of Cluj-Napoca, iacob.florea@ccm.utcn.ro

2. Manea Daniela Lucia, Professor at Faculty of Civil Engineering, Technical University of Cluj-Napoca, daniela.manea@ccm.utcluj.ro



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Short presentation

The invention relates to obtaining composite plates made from natural fibers of sheep's wool intended for the thermal insulation of constructions that meet the defining regulations for a thermal insulation material, and the process for obtaining them. Composite boards are made from a mixture of sheep wool fibers, mixed with glue (adhesive) and various binders (clay, Portland cement, plaster, hydrated lime, hydraulic lime NHL 3.5, balls lime, washable lime, starch, bone glue and rosin). By removing the disadvantages of the wool-based insulation products, which comes in different forms (mattresses or rollers), the innovative character of this invention consists in ensuring dimensional stability of the insulating material. The process of obtaining the plates consists of wool fiber loosening, wool dosing, hydrating it by spraying water into wool mass in an equal amount to wool mass, dosing the adhesive and binder, water, spraying the mixture into wool mass, pouring the mixture. In printing, the compression of the composite plate for 24 hours, its decofraction and the compression interval of 48-72 h.



Applicability

The problem solved by the invention is the creation of wool-based composite plates with low thermal conductivity and density, using a process for obtaining low energy consumption. Natural wool fiber composite tiles are viable natural alternative to synthetic fibers, intended for thermal insulation of buildings and can be easily applied, thus helping to increase the energy efficiency of buildings.



Images

