



TITLE: PROCEDURE FOR THE ELABORATION OF A SOLID HETEROGENEOUS MIXTURE OF ORGANIC NATURE, BIODEGRADABLE AND ITS APPLICATIONS

TECHNOLOGY DESCRIPTION

Procedure for obtaining a material by mixing components of the type: i) Fibers / particles of different vegetables alone or in combination of several of them, ii) Agri-food waste of vegetable origin, iii) Sludge from sewage treatment and iv) Organic amendments (Composts and vermicompost).

The process for making the material includes different phases: a) mixing the ingredients in homogeneous conditions using pretreatments such as grinding, b) adjusting the moisture of the mixture by drying, c) introduction of a natural solution that performs cohesion tasks , d) adaptation of the mixture to the mold of the

desired product, e) application of suitable sequences of pressure-temperature cycles. The heat-temperature range is in the interval of 50-120 ° C; the pressure will vary between 15-25 kg / cm², f) demoulding and refining of the product. Depending on the product and the specific application, a subsequent coating process with a biodegradable coating can be added.

BUSINESS APLICACIÓN SECTORS

The technology developed allows the elaboration of elements, panels, organic blankets, stakes or any other way that you want to carry out based on this procedure, for different uses such as agriculture, gardening and landscaping, etc.

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

The materials used in the protection of the soil, in conditions of slopes include mostly plastics in their composition, formulation, structure, etc. This new system is 100% biodegradable depending on the nature of the ingredients used. The manufacturing processes do not include solvents or volatile chemical compounds such as ureaformaldehyde used in the construction panel industry. The use of inputs from residual flows also allows implementing circular economy scenarios as advocated by the new European regulations. The sequential release of essential nutrients for plant life also allows the recovery of nutrients and C for the soil.

TECHNOLOGY DEVELOPMENT LEVEL

A prototype is available for development and commercialization.

INTELLECTUAL PROPERTY RIGHTS

Protected by patent in Spain. The rights correspond to the Miguel Hernández University of Elche

SEARCHED COLABORACIÓN

Collaboration with interested companies to carry out proof of concept that facilitate their commercialization and industrial implementation.



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Picture 1 Technology application

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