

Composite Material

Industries for this invention

- Furniture Manufacturing
- General Manufacturing

Innovation Status

TRL 5
Early Prototype

Intellectual Property

Know-how

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Invention

This invention relates to a composite material comprising natural products and a method to prepare the composite material. The invention further relates to a method of manufacturing an article, for example an article of furniture or a building element, using the composite material of the invention.

Problem Solved

A large amount of furniture products are manufactured daily with very little consideration for sustainability. Majority of people do not consider how these items were made and what materials were used. This unique composite has the potential to be used within a furniture context. The material is completely biodegradable and could use primitive technology to be manufactured. It has great strength qualities, and its appearance is like concrete making it a versatile to use.

Application

This composite material produces a plastic-type state and a unique surface finish, possibly created by air bubbles in the mixture, resulting in a sparkling effect once held under a light.

The composite material can be shaped through compression molding or pouring the liquid state composite material into a one-part mold. Depending on the ratios of components in the particular formulation, the mixture may cure in about 10 minutes. The cast can be demolded and handled once sufficiently cooled.

Advantages

- Sustainable ingredients found in nature
- Easy to shape using pouring molds or compression molding
- Completely biodegradable
- Requires basic equipment to produce
- Great strength quality

