



The first modelling clay

ULTRA RESISTANT

from natural fibres



modelling



air-dried



resistant



non-toxic



ecological



economic

the shape of your ideas



EQUIPO

CEO

Carlos Morán
Dr. in Fine Arts



CTO

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Agricultural Engineer



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THE PROJECT

At **formaché** we create **innovative materials** based on the use of **vegetable fibres** (banana, wheat straw, rice, etc.) or cellulose waste (cardboard, stationery) which we sequester in a patented formulation of **vinyl binder** and **gypsum**, to obtain **multi-purpose pastes** with which we manufacture products (**panels, modelling pastes and injectable pastes**) with mechanical and conservation properties of great value in the industrial (construction, furniture, eco-design) and artistic (**plastic arts, decoration**) sectors.

PROBLEM

In order to be considered as an "**ecological material**", we need to replace the **vinyl binder** with a natural binder that works as an **adhesive** so that the resulting material has optimum **plastic capacities** for its **fresh** modelling and **mechanical, acoustic** and **thermal** performance for its dry treatment.

SOLUTION

For the choice of the natural binder, the solution is to move away from **starches**, as their capacity for **degradation** by **decomposition** affects the **conservation** of the pastes.

We have scientific evidence of a substance secreted by the bacterium **caulobacter crescentus** which has a **powerful adhesive** power, is **water resistant** and **biodegradable**.

CHALLENGE - IDEATION

To analyse the current bibliography and determine whether the substance is available on the **market** for **purchase** and subsequent **testing** with our formulations or, failing that, to determine the state of the art to assess whether it is feasible to advance the **line of research** that will allow us to **synthesise** the substance for **our use**.

PRODUCTS AND MARKETS

PANEL FORMAT:

- **Construction:** ecological panels, complex surfaces.
- **Decoration:** decorative walls, ephemeral carpentry.
- **Furniture:** furniture, chairs, multipurpose surfaces.

MODELLING PASTE FORMAT:

- **Art:** sculptures, crafts, handicrafts, reproductions, etc.
- **Restoration:** repairing pastes, DIY.

INJECTABLE PASTE FORMAT:

- **Arte:** 3D printing of complex shapes, sculptures, furniture, etc.
- **Logistics:** 3D printing of complex packaging, packagin
- **Medicine:** 3D printing of immobilisation splints.

ROADMAP



www.formache.com