

## The hydrophobization of fine powders for Plaster and Cement industry

Our partner a Hungarian company with an advanced technology for turning powdered materials into hydrophobic powders or granules is looking for possible business partners interested in licensing or purchasing the technology/product.

### ABSTRACT:

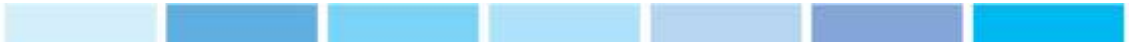
The technology consists of an original industrial process by which natural materials can be turned into products with hydrophobic properties. These products can be developed as powders or granules with varying levels of hardness, water resistance, size, and density for diverse set of applications.

### SUMMARY:

In the building industry there is currently a problem that the powdery format of cement and plaster is very difficult to handle with high humidity. There are plastic polymer materials for the hydrophobization of concrete, which are, however, costly and burdening the environment. Outdoor drywalls have a very costly silicone oil additive that is water repellent, it is accumulated and difficult to handle during recycling. However, this technology works with the original raw material products and changes their physical properties so there is no such problem. With the technology fine (in the 2-300 micron particle range) construction materials can be endowed with hydrophobic properties, thus facilitating the storage of powdered material or allowing long-term storage at high humidity without cracking or wrapping. Furthermore, the hydrophobic properties are transferred to the finished products made from the base materials, so cement made from treated cement and plaster from treated plaster powder will also have water repellent properties.

The hydrophobic nature of the base material does not prevent mixing directly with water, there is no substantial change in the mixing time and in the bonding time, although some physical properties and appearance may be somewhat altered in the finished product compared to untreated original concrete and plaster. During the hydrophobization process, no artificial or synthetic, environmentally harmful or health-damaging materials are used. The production is space-saving, energy-saving, scalable, fully automated with minimal human resource requirements.

### MAIN ADVANTAGES:

- Versatility: diverse, easily accessible raw materials, adaptable product properties, fine-tuneable solutions
  - Ecological: natural ingredients, low consumption, recycled materials, emission control, no harmful residue
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- Water resistant on its own or makes other materials water resistant as an additive
- Multiple application fields in various industries
- Diverse models: On its own as technology, as part of production technology, ingredient/additive to materials, ready to use product range, etc.
- Fully automatized, scalable production technology
- Supporting technical tools, on-going R&D

POTENTIAL AREAS OF USE:

Construction industry (cement and concrete industry, road constructions, natural water resistant materials and layers, paints, insulation)

Paper industry (water resistant cellulose and paper, packaging)

STAGE OF DEVELOPMENT:

Trial production, Working prototype

INTELLECTUAL PROPERTY STATUS:

Patent pending

TYPE OF COLLABORATION:

Exclusive license, Non Exclusive license, Assignment of right, Joint development, Product & production equipment sales, Joint Venture

**If you are interested, please respond to:**

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