

Invention and patent commercialization

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Smartering

Formwork panel generation with high durability and integration of anti-theft protection.

Problem Description:

Currently, concrete formwork is treated with special release agents (formwork oil) before use. In this way, the formwork can later be easily detached from the concrete, usually without damage. However, the frequency of use of the formwork is limited, and theft also occurs on construction sites. In the formwork industry, the rental business is common practice.

The new solution: Smartering

By means of a special coating of the formwork surface, the operating times of formwork can be significantly increased compared to standard technologies. This leads to significantly better cost-effectiveness and higher contribution margins for the formwork manufacturer (lessor). In addition, it leads to a better quality of the surface, especially with fair-faced concrete.

First, a waterproof base layer is applied to the formwork panel. Then the patented reservoir layer is applied, which is supplied with a release agent and slowly releases it again, similar to a sponge, through the so-called seepage-dripping effect and ensures the supply of release agent to the panel surface. This also ensures lower consumption of the release agent compared with the conventional process.



Sample panel

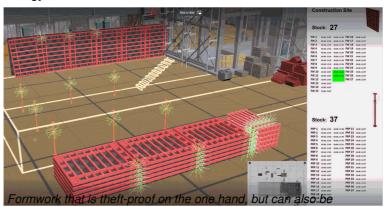


First tests

By using electronic components

that are embedded in the base layer, the formwork can be managed and tracked electronically. This provides perfect digitalization conditions for logistics, quality and economy, as well as additional added value in the form of theft protection.

Existing wood panel stocks can be retrofitted with the patented technology.



assigned and billed locally and to the applications.

companies whose own plate solution contains the two elements "waterproof base layer" and "partially porous release layer above, which can accommodate a release agent", these are also covered by the IP right in conjunction with a signal module/electronics. So a unique chance to acquire this property right to secure a unique position.

Advantages of the innovation:

- Multiple service life due to optimized release agent supply and surface at slightly higher manufacturing costs (compared to wood panels).
- Noticeably increased manufacturer's contribution to cover per m² of panel
- Lower consumption of release agent
- Possibility to retrofit existing wood panel stocks
- Possible digitization of the formwork
- Panel is easy to dispose of or fully compostable (components wood and natural resin)
- Wood requirement reduced by 2/3, thus conserving natural resources through longer service life
- Green footprint due to high CO2 emission savings
- Takeover of Austrian GmbH possible in which alone the patents are held, which exists since 2017.
- Sale of CO2 certificates possible (or saving in a production company)
- For players in the formwork industry, there is a unique opportunity to acquire this property right in order to secure a unique position also with their own formwork sheet.
- The IP right is also interesting as a strategic patent on the topic of "digital construction site" due to the protective layer and signal module protected therein.

Benefits of innovation for contractors/GUs:

- Competitive advantage, cost advantages
- Proof of ownership of the formwork panel by electronics and thus direct allocation to the supplier or ARGE partner.
- Proof of the time the panel has been used by the electronics, thus
 enabling the supplier to be invoiced according to the time it has
 been used and not according to the rental period.
- Evaluation of the stock of the panels by the time of use or wear and tear.
- Theft protection
- · A step towards digitization of the construction site
- ⇒ Innovation with unique selling points, patented in all international core markets of the construction industry!
- ⇒ High customer benefit
- ⇒ Huge market

Please contact us for more detailed information!

Or on www.invencomm.com

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The wording of the IP right granted is quite broad, so that

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