Technology Offer

Wood Coatings Based on Liquefied Wood

Field of use
Surface treatments;
Coatings and Finishes

Current state of technology
Laboratory test in progress

Intellectual property
Know-how

Publication
KUMAR, Anuj, PETRIČ, Marko, KRIČEJ, Borut, et.al. Liquefied wood based polyurethane-nanosilica hybrid coatings and hydrophobization by self-assembled monolayers of orthotrichlorosilane (OTS). ACS sustainable chemistry & engineering, ISSN 2168-0485, 2015, vol. 3, no. 10, str. 2533-2541.

Developed by
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Concact

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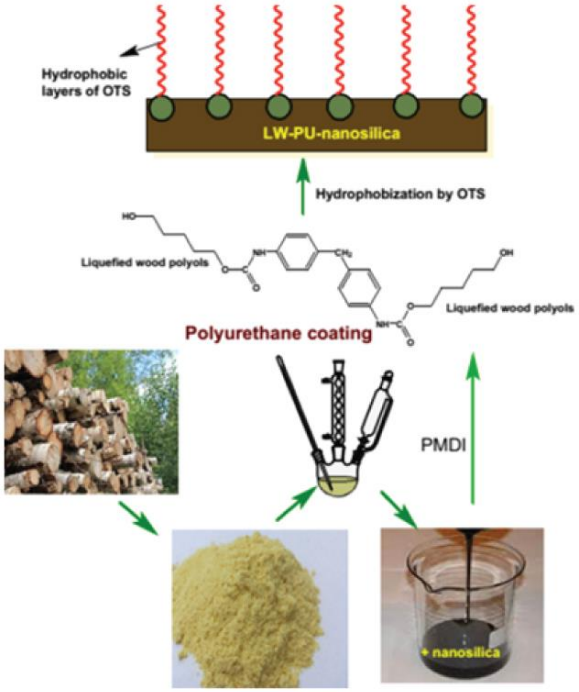

Background

The existing commercial wood coatings are mainly containing binders based on synthetic resins. Both solvent- or water-borne coatings contain main ingredients made from non-renewable resources and so, their influence on the environment is considerable. Therefore, there is an intensive search for suitable binder alternatives based on renewable resources. Such a potential alternative is also liquefied wood.

Description of the Invention

There are reports and even products for wood bonding, based on liquefied wood, already described in literature. On the other hand, liquefied-wood based coatings for wood are very rarely mentioned and by our best knowledge have not been applied so far in practice. So, development and characterization of liquefied wood-based finishes for wood represent our invention.

Main Advantages

Substitution of wood coatings with synthetic resins as a main ingredient with finishes that contain binders based on renewable biomass.

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