



Licensing opportunity

New device and process for plasma-treating wood and other lignocellulosic products

Field of use

Surface treatments;
Coatings and Finishes

Current state of technology

Laboratory test in progress

Intellectual Property

Know-how

Publication

ŽIGON, Jure, PETRIČ, Marko, DAHLE, Sebastian. Predobdelava površine lesa s plazmo DBD za povečanje učinkovitosti površinske zaščite s premazi na vodni osnovi. V: HUMAR, Miha (ur.), KRAIGHER, Hojka (ur.). *Gozd in les : 70 let*, (Studia Forestalia Slovenica, ISSN 0353-6025, 157). 1. izd. Ljubljana: Založba Silva Slovenica, Gozdarski inštitut Slovenije: Silva Slovenica Publishing Centre, Slovenian Forestry Institute. 2017, str. 50-54.

Developed by

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Background

Elaborate pre-treatments are required prior to bonding, gluing, painting, or otherwise finishing surfaces of wooden parts for almost all final applications. Proper adhesion of a finish is usually assured by sanding (for instance with the sanding paper of 120 – 180 grit) and by application of a primer.

Description of the Invention

The invention provides a device and a related process for the direct plasma treatment of wood and lignocellulosic products irrespective of their thickness. It can be used prior to coating or bonding in order to improve mechanical and optical properties of the final product.

Main Advantages

Plasma pretreatments are highly beneficial pretreatments, providing better results than many conventional chemical or mechanical processes for surface treatments. Different from the state-of-the-art, the invention allows a direct plasma treatment of wood and lignocellulosic products independent of and not limited by their thicknesses.



»The investment is co-financed by the Republic of Slovenia and the European Union under the European Regional Development Fund.«

