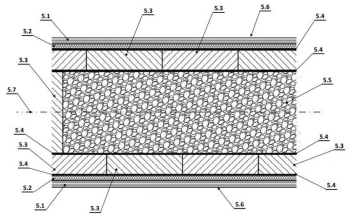
Innovative massive doors



Slika 5.

Innovative massive front door made of reinforced and stabilized oak panel used for general use and construction

The subject invention relates to a technical solution for reinforcing oak panels/slabs where one tries to avoid or reduce the phenomenon of deformation that occurs in differential climate conditions due to different levels of moisture and temperature on certain sides of panels/slabs/doors. This phenomenon is especially present in wooden front doors, but also in other wood products that are located between different climatic conditions. As a result of testing and collected data on deformations, a reinforced and stabilized oak board for general use and construction was constructed as a solution to a technical problem. The middle layer of this panel is made of a frame made of oak elements with insulation material, which is covered with an oak panel on both sides. Between the solid oak board and the oak sticker, a pre-stressed cloth made of glass or carbon fibers is inserted. This technical solution is particularly suitable for use at the boundaries of external and internal use systems (exterior/interior), i.e. in conditions of exposure to differential climate, because the reinforcements in the sublayer allow the migration of moisture and thereby result in negligible deformations of the product. This is especially practical for elements of larger formats, e.g. 1200×2600 mm, where the finished products are placed vertically (entrance doors, facade cladding elements, advertising panels,...), and especially if the direction of the wood fibers is turned horizontally (that is, where the dominant swelling and weighting of wood in width).

MORE DETAILS

CHALLENGE ADDRESSED

6.- Grow the forest-based bioeconomy through circular use and value-added products

DOMAIN

Research and development

TYPE OF SOLUTION

Circular, bio-based products

KEYWORDS

oak; massive; reinforced; stabilized

DIGITAL SOLUTION

No

INNOVATION

Yes

COUNTRY OF ORIGIN

Croatia

SCALE OF APPLICATION

Cross-border/multi-lateral (several countries)

START AND END YEAR

2018 - 2022

CONTACT DATA

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REFERENCES AND RESOURCES

MAIN WEBSITE

https://spacva.eu

PROJECT WEBSITE

https://spacva.eu/eu-projects/eu-project-spacva-d-d

PROJECT REFERENCE

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RESOURCES

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LOGO OF BEST PRACTICE

LOGO OF MAIN ORGANIZATION

SPAČVA

PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood 4.0

POST DATE

24 Mar 2023

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

cesefor
Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León