

Title (en)
Method for hydrothermal treatment of wood

Title (de)
Verfahren zur hydrothermalen Behandlung von Holz

Title (fr)
Procédé de traitement hydrothermique de bois

Publication
EP 2889112 A1 20150701 (EN)

Application
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Priority
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Abstract (en)
The present invention relates to a woodworking industry and may be used for hydrothermal treatment of wood, wood materials, and woodware. The object of the present invention is to increase hydrophobicity of wood. According to the present invention the object is achieved by that wood is heated up to 120-160°C in a steam atmosphere, in which it is seasoned, and then wood is cooled up to room temperature, and heated during the first stage at a rate 0.16-0.22°/min up to 100°C, and then the heating rate of obtained steam is decreased up to 0.11-0.13 °/min until the temperature of 160°C is reached, and wood is seasoned at the temperature of 160°C during 1-3 hours at a steam pressure 0.6-0.7 MPa, and cooled up to the temperature of 20°C during 6-8 hours. the method of hydrothermal treatment of wood according to the present invention allows increasing hydrophobicity of wood by several times along with saving energy costs. Moreover, hydrophobicity values of treated wood are higher than those of impregnated wood.

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Citation (search report)
• [A] GB 822958 A 19591104 - IROSZERGYAR
• [A] US 1810659 A 19310616 - WOLF KRITCHEVSKY, et al
• [A] US 2280560 A 19420421 - ANDRE VAUTBERIN HENRI MARIE

Cited by
US10730202B2; WO2017084884A1; WO2017097506A1; US10399245B2; US11148317B2; US11007668B2; US11904496B2; EP3178622B1; EP3170635B1

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