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# DETERMINATION OF TECHNOLOGICAL PARAMETERS TO PRODUCE BLOCKBOARD FROM *Bambusa procera* A.Chev & A.Camus AND *Thyrsostachys siamensis* FOR FURNITURE PRODUCTION

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## SUMMARY

*Bambusa procera* A.Chev & A.Camus and *Thyrsostachys siamensis* are trees with a family of bamboos which have mechanical properties similar to soft wood, easy to process, cheap material prices, which are available in many rural and mountainous areas and commonly used as a traditional construction material. If calculated by density, bamboo has vertical tensile strength greater than wood 3 or 4 times, 6 times higher than steel, their horizontal compression strength is higher than wood 10% and being compressed better than concrete. However, they also have many limitations due to the specific structural characteristics of the single-plant type: small size, structure and mechanical properties of the material vary with the radius and height of the tree,... In order to overcome these disadvantages of bamboo materials and increase the advantages of them, we can use the technology to press the blocks of the basic materials of bamboo. By empirical research method, the results of this study showed that: For raw materials that are the basic plank of *Bambusa procera* A.Chev & A.Camus using 14.0% of glue, pressure of 0.26 MPa/1mm of thickness, the time of maintaining pressure of 21.0 hours, we received the product of blockboard with static bending strength 13.26 MPa, perpendicular tensile strength 0.29 MPa, water absorption after 24 hours 10.86%. With materials which are the basic plank of *Thyrsostachys siamensis*, use of glue amount of 90.0 g/m<sup>2</sup>, pressure of 0.32 MPa/1mm thickness, time to maintain pressure 18.5 hours, the blockboard has static bending strength of 14.62 MPa, perpendicular tensile strength of 0.35 MPa, water absorption after 24 hours of 8.6%. The quality criteria of blockboard from *Bambusa procera* A.Chev & A.Camus and *Thyrsostachys siamensis* fully meet the quality requirements of materials for making furniture.

**Keywords:** *Bambusa procera* A.Chev & A.Camus, blockboard, *Thyrsostachys siamensis*.

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