# Mechanical Properties of Glued Laminated Benguet Pine (*Pinus kesiya* Royle Ex Gordon): Bending and Compression

**Chester Allan P. Kiat-ong**
College of Architecture, University of the Philippines Diliman
Philippines
*lasan.net@gmail.com*

**Luis Ma. T. Bo-ot**
College of Architecture, University of the Philippines Diliman
Philippines
*ltboot1@up.edu.ph*

**Rico J. Cabangon**
DOST-Forest Products Research and Development Institute
University of the Philippines Los Baños, Laguna
Philippines
*rjcabangon@hotmail.com*

**Renato D. Tandoc**
Saint Louis University, Baguio, Benguet
Philippines
*rdtmsce@gmail.com*

## Abstract

*We initiate investigation of glued laminated Benguet Pine (Pinus kesiya Royle Ex Gordon), which is a Philippine wood species endemic in mountainous regions, for mechanical properties under bending and compression. Samples used were with lamina size of 25 mm x 100 mm (length is dependent on the test to be done) and built-up to sections using four (4) laminas. The glued laminated sample results were compared with the mechanical properties of solid Benguet pine where the former shows a significant difference in the investigated mechanical properties. Test results showed that glued laminated Benguet Pine can be a candidate for an E150-F435 grade of the Japanese Agricultural Standard but cannot be identified with the grades of the British Standard and the Glued Laminated Timber of Australia Association due to the required strength in the MOE of compression parallel to grain.*

Keywords: Glue laminated Wood, Glulam, Benguet Pine, Mechanical Properties