

QUALITY CONTROL STUDY ON THREE THICKNESS OF PLYWOOD PT. PACIFIC BONTANG RAYA EAST KALIMANTAN

by :
Siska Diani Surya¹
TA. Prayitno²

ABSTRACT

Wood industry including plywood is an effort that gives chances of wider use of wood product. A success in a plywood industry reflected by its product, which is accepted by the consumers or not. Hence the products should have a good quality and conform with a certain standard. To attain good products which have a good quality and also have passed all standard requirements, a controlled mechanism or a quality control is needed during the production process. This research was intended to find out whether the plywood product with three ply of 3.6 mm, 4.8 mm and 5.2 mm thickness are in statistical controlled or not, based on analysis chart and to find out any influences between the thickness to the deviation of the length, width, thickness, length of diagonals, moisture content, and bonding strength.

The research was conducted in PT. Pacific Bontang Raya, East Kalimantan. The method used in this research was divided into several stages, i.e. making the \bar{X} and R charts, run test if the process was stated out of control by that charts, making the OC Curve (Operating Characteristic Curve), ANOVA (Analysis of Variance) test to find out whether the thickness affected to the quality character deviation that mentioned above and the extended test of HSD (Honestly Significant Difference) if the ANOVA test shows the significant result that thickness affected to the quality character.

Results of the research showed that quality character of length and width for all kind of thickness, length of diagonals for 4.8 mm and 5.2 mm thickness, moisture content for 3.6 mm and 4.8 mm thickness, and bonding strength for 5.2 mm thickness were under control. Two variables out of control were thickness (3.6 mm, 4.8 mm and 5.2 mm) and bonding strength (3.6 mm and 4.8 mm thickness). The effect of plywood thickness was non significant to the deviation of length, width, thickness and moisture content but it affected significantly on the length of diagonals and bonding strength quality characters.

Keywords : quality control, plywood, PT Pacific Bontang Raya

¹Student of Forest Product Technology, Faculty of Forestry, Gadjah Mada University

²Lecturer of Forest Product Technology, Faculty of Forestry, Gadjah Mada University