KAMPER WOOD CONNECTION LAMINA AN ALTERNATIVE STIFFNESS AND WOOD SOLID COLLAPSE

Joko Suryono
Civil Engineering Program Polytechnic State Samarinda
Jl . Dr. . Cipto Mangunkusumo Campus Gunung Lipan Samarinda. Indonesia
Jokosuryono55@gmail.com

ABSTRACT

In order to meet the availability of structural components with dimensions that do not depend on the diameter of the timber , it is developing structure form instead of solid wood but laminate components are made by gluing or commonly referred to as laminated beams or Glulam (Glued Laminated) . The purpose of this study is : Knowing the physical properties and mechanical properties of wood laminated limestone ; Analyzing stiffness (MOE) and collapse (MOR) .The materials used in this penelititan ie from lime wood aged less than 25 years from Muara Wahau East Kutai Regency of East Kalimantan Province . Adhesives used are synthetic wood finishes and andhesives Synteko 1909 and 1999 with the hardener composition ratio 100/15 % . This study used a test machine brands Amsler scale were made in Western Germany with a capacity of 100 kN up to the ultimate limit . The size of the test sample 6 cm x 6 cm x 6 cm , 6 cm x 6 cm x 76 cm with a thickness of each lamina 2 cm adhesive to both surfaces given 200-220/m2 resurfacing and each treatment was made three replications . Research findings indicate that the value of the initial moisture content of 12 % on average , the value of density from 0.58 to 0.63 kg/cm^3 , the value of the MOE 8971 to 9895 N/mm^2 , MOR values 54.78 to 70,12 N/mm2 , the results of the analysis of the pattern of wood lamina connections to do is no difference between the treatment , whereas there was no difference in effect between treatments .This study suggests that the adhesive and hardener Synteko can be used as an alternative connection material . Given the weakness can determine the efficiency of a connection on the wood and construction adhesives have high efficiency .

Keywords: Water Content , Density , MOE , MOR.