

ABSTRACT

Wood is an environmentally friendly material and is widely used for construction. Efforts are needed of wood and development wood processing technology. LVL is methods to develop the wood. In this study, LVL is used as a floor beam where it will later be given a connection that will be used as reinforcement. The connecting tool used is a nail.

The research method used is line loading (two points) with a floor system test object with a 20 ton capacity hydraulic jack. Deflection is read with LVDT at the point of loading and mid-span..

On the test object with line loading, the analysis results obtained maximum load value 2.72 kN.

The test results obtained the maximum load value of 34.625 kN, 38.25 Kn, 37.75 Kn. The analysis ratio is 12.73; 14.06, and 13.87 on the three test objects. The first form of failure that occurs is a failure in the connection area that has a smaller strength.

Keywords: LVL, connection, floor beam