PREFEBRICATED WOOD I-JOIST FROM LAMINETED VENEER LUMBER (LVL) FLANGES AND PLYWOOD PERPENDICULAR WEB

By

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I-Joist component is using the system that involve the using of flanges laminated veneer lumber (LVL) and web from plywood. Both components are combined and musk work together. The strength will be same with solid wood. The purpose of this testing is to test the strength of I-Joist that made from the combination between laminated veneer lumber as flanges and plywood perpendicular to grain with butt joint as web. the sample of I-Joist that have the highest modulus of rupture value was sample (S9) 26.4 MPa and the lowest modulus of rupture value was sample (S10) 15.2 MPa. Furthermore, the testing was to test the modulus of elasticity true. The result shows the highest value was sample (S10) with 8356 MPa and the lowest modulus of elasticity value was sample (S1) 7298 MPa. As the conclusion to this study, flange and web components act together and perform as a system of I-Joist.