

ABSTRACT

Reinforcement steel products is the result of mine whose existence one moment will run out. To solve the problem as an alternative attempted discharging bamboo of being cheap and also available quite a lot. Bamboo was selected as an alternate reinforcement concrete, because bamboo has a powerful pull-on par with fairly high-tensile steel strong software. On the research of bamboo that is used is the bamboo apus as reinforcement in concrete reinforcement blocks of clay, planned (underreinforced) and have no reinforcement bars were given all the press, the reinforcement of pilinan bamboo bamboo apus with 3 strands and given a waterproof layer. Testing is conducted in the laboratory of Construction Materials Engineering with discharging the burden of two points, so that the beam will hopefully happen purely elastic. The results showed that the average value of a comparison between the nominal moment (reinforced bamboo) with the moment of cracking (normal concrete beams) is a theoretical area of 73,51%, this indicates and to test itself is the result of 86,16%. Comparison between power against armor with the difference bamboo f_y amounted to 400 MPa for steel and bamboo can 240,0042 MPa to known by looking at the results the average percent i.e. of both 60,98%, and the average maximum lendutan that occurs each beam is 0.26 mm It was concluded that bamboo has the opportunity to use as reinforcement for concrete structures, especially the simple

Keywords: Beams, concrete reinforcement solid bamboo, pliable.