## ABSTRAK

Semakin pesatnya pembangunan yang dilakukan maka sangat dibutuhkan bahan penutup atap yang baik dan memenuhi persyaratan kuat, ringan, dan kedap air. Perbandingan antara semen portland, kapur mill, dan pasir pada komposisi campuran genteng beton yaitu 1 PC : 3 PS. Sedangkan persentase penambahan serat sabut kelapa dan styrofoam 0%; 10%; 15%; 40% dari berat volume pasir. Analisis data dilakukan dengan menghitung rata-rata hasil pengujian kemudian dibandingkan dengan persyaratan SNI 0096-2007. Hasil pengujian ketahanan terhadap rembesan (impermeabilitas) genteng beton dengan penambahan serat sabut kelapa dan styrofoam 0%; 10% ; 15%; 40%; semuanya tidak terjadi rembesan, hasil pengujian penyerapan air (porositas) rata-rata genteng beton pada penambahan serat sabut kelapa dan styrofoam 0% = 4,40%; 10% = 4,28%; 15% = 6,89%; 40% = 7,32%; Hasil pengujian beban lentur rata-rata pada persentas penambahan serat sabut kelapa dan styrofoam 0% = 150,3 kg; 10% = 177,8 kg; 15% = 191,7 kg; 40% = 223.5 kg. Dari hasil pengujian tersebut maka dapat disimpulkan bahwa semakin banyak persentase serat yang ditambahkan dalam genteng beton maka semakin besar beban lentur yang dihasilkan. Hasil penelitian menunjukkan bahwa genteng beton dengan penambahan serat sabut kelapa sudah memenuhi SNI 0096-2007 dari segi ketahanan terhadap rembesan (impermeabilitas), sebagian porositas, sifat tampak, dan ukuran.



Kata Kunci :genteng beton, Serat sabut kelapa,styrofoam

***ABSTRACT***

*The rapid development made it a much needed roofing material is good and meets the requirements of a strong, lightweight, and waterproof. Comparison between portland cement, lime mill, and sand on the composition of the mixture of concrete roof tiles are 1 PC: 3 PS. While the percentage increment of coco fiber and Styrofoam 0%; 10%; 15%; 40% of the weight of the volume of sand. Data analysis was performed by calculating the average of the test results are then compared with the requirements of ISO 0096-2007. Results of testing the resistance to seepage (impermeability) of concrete roof tiles with the addition of coconut coir fiber and Styrofoam 0%; 10%; 15%; 40%; everything is no seepage occurs, the test results of water absorption (porosity) Average concrete tile on the addition of coco fiber and Styrofoam 0% = 4.40%; 10% = 4.28%; 15% = 6.89%; 40% = 7.32%; Results of testing the bending load average on persentas addition of coco fiber and Styrofoam 0% = 150.3 kg; 10% = 177.8 kg; 15% = 191.7 kg; 40% = 223.5 kg. From these test results it can be concluded that the more the percentage of fiber added in concrete roof tile, the greater the bending load is generated. The results showed that the concrete tile with the addition of coconut coir fiber meets the ISO 0096-2007 in terms of resistance to seepage (impermeability), some porosity, nature looks and size.*

*Keywords: concrete tile, coconut fiber, Styrofoam*