

***INFLUENCE OF PARTICLE PALM OIL SIZE TO HEAT EFFICIENCY IN  
PALM OIL SHELL BRIQUETTES***

***ABSTRACT***

The energy crisis that occurred as a result of the limited supply of fossil energy, has prompted efforts to develop alternative energy. One developed alternative energy is palm oil shell briquettes. palm Oil shell waste is one of the processing of palm oil production. The amount of any production of palm oil shell reaches 3.75% of the total palm oil fresh fruit bunches.

Has been made of palm oil shell briquettes based particle size variations. Variations in particle size used in the study are smaller than 8 mesh, between 8-12 mesh, 12-20 mesh between, and greater than 20 mesh. As the adhesive briquettes used cassava flour in the ratio 1:7 weight ratio of palm shell particles.

The results showed that the briquettes with a mesh size of between 8 - 12 mesh has an average calorific value of the largest in the amount of 4696.20 cal/gram. Briquettes with size greater than 20 mesh is briquettes which have the shortest trigger time is 59 seconds and the little amount of residual charcoal weighing 2.13 grams. The briquettes with a time of 16.67 minutes is the longest flame is briquettes with particle sizes smaller than 8 mesh.

**Keywords:** *Briquettes palm shells, efficiency, particle size.*