Physical, Mechanical, and Thermal Properties on Non Fines Concrette Substituted by Bottom Ash PJB UP – Paiton Unit 1 and 2

Rani Dwi Tunggal Lestari
Renewable Energy Engineering Study Program
Engineering Department

ABSTRACT

Bottom ash is coal combustion waste containing pozzolan compounds. In Indonesia to handling bottom ash waste is store up it in landfills that will require a larger area to stockpile and potentially danger to the environment and society. This research aims to determine the percentage of optimum bottom ash that use in non fines concrete mixture. The percentage of bottom ash used is 10%, 20% and 30% and as the control is used non fines concrete without bottom ash substitution. The non fines concrete properties parameters analyzed were porosity, compressive strength and thermal conductivity. The results showed that the optimum composition was obtained by using 10% bottom ash percentage with 16.35% porosity value, 18.8 MPa of compressive strength and 2.03 W/mK thermal conductivity.

***Keywords** : Bottom Ash, Non Fines Concrette, Characterization*