**Utilization of coral reef as substitution and FLY ASH and SUPERPLASTICIZER as additional materials of concrete mix**

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**ABSTRACT**

In this study the use of coral as a concrete mixture was used for the construction of a fishing boat dock floor. To meet the criteria of compressive strength and good absorption of concrete, research and experiments were carried out, one of which was using additives (admixture). This study aims to determine the effect of the addition of fly ash, rock and superplasticizer to the compressive strength and absorption of concrete.The sample used is cylindrical (15 cm x 30 cm). Concrete is planned with fc 20.75 or K-300 with a comparison of fly ash waste as much as 20% of the weight of cement, as much as 5%, 10% and 15% and 20% of the weight of gravel and superplasticizer as much as 1.5% of the weight of water. From this study, it was found that the most superior samples were variations in BK3 FA20% + BK 10% + SP 1.5% with compressive strength of 22.741 Mpa curing fresh water and absorption of 2.15%.

Keywords : dock, concrete absorption, concrete sea water curing, freshwater concrete curing, concrete compressive strength, superplasticizer, fly ash.