

Study on the properties of oil palm trunk fiber (OPTF) in cement composite

Abstract

Properties of oil palm trunk fiber reinforced cement composite were investigated in this study. Oil palm trunk fiber was used to improve the properties of cement composite. It was found that increasing in oil palm trunk fiber content up to certain percentage increase the compressive strength and decrease the density of cement composite. Besides, the study also found that additional of excessive of oil palm trunk fiber in cement composite decrease the compressive strength and continues to increase the water absorption and moisture content hence decrease the density. From this study, it was found that 2 wt. % of fiber content was the optimum fiber content to give the highest compressive strength of 38.61 MPa.

Keywords

Cement composite; Compressive strength; Oil palm trunk fiber; Physical properties