

Cement mortars were produced in which 10% of Portland cement was replaced by metakaolin. The physical properties i.e. shrinkage and mechanical strength of the mortar were studied. The results show that the metakaolin slows cement hydration, decreases the conductivity and the pH of cement suspensions and increases the setting time of cement paste. Due to these changes the plastic viscosity and workability of mix concrete are enhanced. The compressive strength of mortar with metakaolin addition is close to the strength of reference mortar after 28 days, but early strength is lower. Moreover, the metakaolin addition is increasing shrinkage in relation to the reference mortar