

ABSTRACT

As a result of the rising cost of building materials, it has become necessary to search for the affordable and cheaply obtainable material which might be partially replaced cement in the production of concrete. However, this research work was aimed at determining the chemical and physical properties of LAC, workability properties of fresh concrete, the specific gravity, bulk densities and compressive strength of the hardened concrete under uniaxial compressive load. This project is an experimental study on the use of Leaf Ash (LAC) as partial replacement for cement. More so, leaves were dried, burnt and heated in a furnace to produce Leaf Ash, which was discovered to possess pozzolanic properties. Research findings have revealed that this material can be used as partial replacement for cement in concrete due to its chemical and physical properties. The Ordinary Portland cement was replaced by LAC at 15%, 20% and 25% by weight and the cubes were crushed to get the various compressive strength of the concrete at different curing days. The results revealed that, the workability and strength properties of the resulting concrete was dependent on the water cement ratio, total days of curing, and percentage of replacement of LAC for OPC. It was however noticed that the result of 15% and 20% LAC were closer to the concrete with only OPC at 28 days. who will find LAC as a good partial replacement for cement in concrete, thus reducing cost of concrete production