

An Experimental Study on Pervious Concrete

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Abstract: *high porosity used for concrete flatwork applications that allows water from precipitation and other sources to pass directly through, thereby reducing the runoff from a site and allowing groundwater recharge. It is called as porous concrete, permeable concrete, no fines concrete and porous pavement. Pervious concrete is made using large aggregates with little to no fine aggregates. The concrete paste then coats the aggregates and allows water to pass through the concrete slab. This type of concrete having a high void content of about 20%, is becoming popular nowadays due to its potential to reduce the runoff to the drainage systems which can provide a water flow rate around 0.34 cm/second. It is an important application for sustainable construction and is one of many low impact development techniques used by builders to protect water quality . Pervious concrete also find its effective application in low loading intensity parking pavements, footpaths, walkways and highways. The pervious concrete is considered as an Environmental Protection Agency (EPA) for providing pollution control, storm management and suitable development. It is a composite material produced by mixing cement, inert matrix of sand and gravel or crushed stone. This concrete has a light colour and open-cell structure because of which they do not absorb heat from the sun; they also do not radiate the heat back into the atmosphere, which reduces heating in the environment. Pervious concrete has low installation costs. In addition, it filters the storm water thus reducing the number of pollutants entering the rivers and ponds. Pervious concrete also improves the growth of trees. In the present study the behaviour of pervious concrete has to be studied experimentally by using Flyash, silica fume, Titanium dioxide materials. Different properties of pervious concrete e.g. compressive strength, split tensile strength, permeability test at 7 & 28 days to be studied*

Keywords: Silica Fume, Opc, fly ash, tio2 compressive Strength, split tensile Strength

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