

عنوان مقاله:

Evaluation of Coal Waste Ash and Rice Husk Ash on Properties of Pervious Concrete Pavement

محل انتشار:

ماهنامه بین المللی مهندسی، دوره 29، شماره 2 (سال: 1394)

تعداد صفحات اصل مقاله: 9

نویسندگان:

G Sharfabakhsh - Faculty of Civil Engineering, Semnan University, Semnan, Islamic Republic of Iran

S Ahmadi - Faculty of Civil Engineering, Semnan University, Semnan, Islamic Republic of Iran

خلاصه مقاله:

The use of pervious concrete has been significantly considered in recent years. This consideration is due to the properties of pervious concrete in relation to the environmental sustainability that is utilized in the effective management of the runoff from rainfall. Coal extraction and rice husk obtained from milling, produces wastes that have no application and followed by environmental pollution. The purpose of current research is to evaluate the effects of coal waste ash (CWA) and rice husk ash (RHA) and to compare the mechanical properties of pervious concrete pavement with concrete having ash. Therefore, both of these wastes were burned and after that XRF testing it was observed that they have achieved pozzolanic properties. In order to strengthen pozzoli cement, certain amount of CWA and RHA as a cement replacement were added to concrete mixtures. The results indicated that the addition of RHA and CWA improved the mechanical properties of pervious concrete. However, the optimum percentage is dramatically varying. Among these, the effectiveness of CWA is more significant compared to RHA. By increasing the amount of CWA and RHA to the optimum level, the permeability of the pervious concrete had simultaneously decreased. However, beyond the optimum level, it may show inverse respond

کلمات کلیدی:

Pervious Concrete Pavement Mechanical Properties Rice Husk Ash Coal Waste Ash

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/542344>

