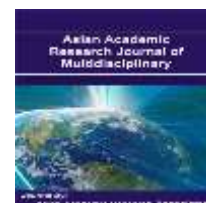




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STRENGTH AND DURABILITY STUDIES ON CONCRETE WITH PARTIAL REPLACEMENT OF CEMENT WITH MARBLE POWDER

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Abstract

Leaving the waste materials to the environment directly can cause environmental problem. Hence the reuse of waste material has been emphasized. Waste can be used to produce new products or can be used as admixtures so that natural resources are used more efficiently and the environment is protected from waste deposits. Marble stone industry generates both solid waste and stone slurry. There are several reuse and recycling solutions for this industrial by-product, both at an experimental phase and in practical applications. These industrial wastes are dumped in the nearby land and the natural fertility of the soil is spoiled. The possibility of using marble waste powder in cement and concrete production was examined by studying the effects of blending of marble waste powder with cement on the physical and chemical properties of cement paste and hardened mortar and by studying the effects of blending of marble waste powder with cement on the performance of fresh and hardened concrete.

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