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Experimental Study on mechanical properties of Transparent Concrete by using Rice Husk Ash

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Description

Transparent concrete is comparatively a new emerging building material which has good light-transmissive properties which is composed of fine concrete and Optical fibers. The chief necessity to produce transparent concrete is to utilize the sunlight as a natural light source to reduce the power consumption of radiance. Also its use in concrete gives good pleasant and artful appearance to the building. In the present investigation, it was aimed to assess the mechanical properties and light transmittance of transparent concrete by partial replacement of cement with Rice Husk Ash (RHA) in 10, 20 and 30 percentages by volume fractions. Plastic Optical Fibers (POF) of 400 micrometer diameter and Glass Optical Fibers (GOF) of 1.5 mm diameter were added to the concrete in 4% of total volume. Based on the test results, it was found that the Compressive strength and tensile strength was found to decrease with increase ...

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