

## **UTILIZATION OF USED FOUNDRY SAND IN CONCRETE**

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### **ABSTRACT**

This research was conducted to investigate the performance of fresh and hardened concrete containing discarded foundry sands as a replacement of fine aggregate. A control concrete mix was proportioned to achieve a 28-day compressive strength of 38 MPa (5500 psi). Other concrete mixes were proportioned to replace 25% and 35% of regular concrete sand with clean/new foundry sand and used foundry sand by weight. Concrete performance was evaluated with respect to compressive strength, tensile strength and modulus of elasticity. At 28-day age, concrete containing used foundry sand showed about 20 to 30% lower values than concrete without used foundry sand. But concrete containing 25% and 35% clean/new foundry sand gave almost the same compressive strength as that of the control mix.