

## **Mechanical and Thermal Properties of Hempcrete**

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### **ABSTRACT**

Industrial Hemp is one of the maximum available and broadly produced best fibers with higher content cellulose. Hemp-concrete is a innovative bearable concrete material where hemp fibers are combined in the mix, four diverse contents of M1, M2, M3 and M4 an addition of constant Hemp fiber. The first three mixes (M1, M2 and M3) of cement content is reduced through 30% of the concrete volume of Hemp fiber and added by fly ash, RHA respectively. And fourthmixes (M4) of concrete is reduced by 10% of marble chips in coarse aggregate. The physical and chemical properties of Hemp fiber, Fly ash, Rice husk ash, and Marble chips were first assessed. Compressive strength, flexural strength, split tensile strength; sorptivity, acid test, and thermal test remained among the constraints examined. The test results show the value of long-term stability.

**Key words:** *Hemp fiber, Fly ash, Rice husk ash, Marble chips, Sorptivity.*