

# **EFFECTS OF SUGARCANE BAGASSE FIBER REINFORCED CONCRETE WITH THE REPLACEMENT OF CEMENT BY SILICA FUME**

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## **ABSTRACT**

This study is to investigate the effects of sugarcane bagasse fiber reinforced concrete along with the replacement of cement by silica fume at various proportions (5%, 10%, 15%). This experiment is started by the preparation of sugarcane bagasse fiber having aspect ratio of 0.45. This investigation includes two parts, the first part focuses on the determination of mechanical properties (compressive, split tensile, young's modulus) of fiber reinforced concrete and the second part includes the durability tests like acid resistance, sea water attack resistance. This paper attempt to increase the compressive strength , split tensile strength. And the young's modulus for fiber reinforced concrete with replacement of cement by silica fume has analyzed by NDT method

Key Words: silica fume, sugarcane bagasse fiber, compressive strength, split tensile strength, young's modulus, acid resistance, sea water attack resistance

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