

Is glass powder a waste or boon for concrete : A thought provoking study

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■ **ABSTRACT :** The utilization of glass powder in the present days as a substitute for cement is to enhance the strength of concrete. The glass powder was supplanted by 0 per cent, 5 per cent, 10 per cent, 15 per cent and 20 per cent for 7 and 28 days for cubes for compressive strength. The utilization of concrete and generation of cement makes considerably more ecological issues and costlier. To maintain a strategic distance from such conditions, the substance of cement is decreased and replaced by glass powder which lessens cost and builds quality and durability of cement. Concrete is the most broadly utilized and adaptable structure material which is commonly used to resist compressive powers. By the addition of some pozzolanic materials, the different properties of cement viz., workability, durability and quality can be improved (Singh and Jain, 2018). Glass may be added in crushed form or in powder form along with the addition of admixtures/plasticizers or without addition of any of the alternate materials in the nominal concrete (Singh and Jain, 2018). Accordingly, a study about usage of glass powder has been made in this paper to include it in concrete as an ingredient so that the best possible usage may be used in the concrete with a partial replacement. From the test the glass powder concrete gives more strength as compared to conventional concrete and can be used for normal construction process.

■ **KEY WORDS :** Wastes reduction, Glass powder, Concrete, Compressive strength

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