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## Patent Search

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### Abstract:

The present invention relates to a method for the preparation of sustainable ternary blended concrete. The object of the proposed method is to use silica fume and z cement replacements for making sustainable concrete. The proposed sustainable ternary blended concrete made improves the workability, strength, and durability c The ternary blended concrete exhibits better results if cement has been replaced with 10% silica fume and 5% zeolite by weight along with 1% admixture. Therefore, 1 sustainable ternary blended concrete is to achieve higher strength and durability. The following invention is described in detail with the help of Figure 1 of sheet 1 sh flowchart to produce sustainable ternary blended concrete with silica fume and zeolite.

### Complete Specification

Description: The present invention provides a method for preparing sustainable ternary blended concrete. The proposed method utilizes silica fume and zeolite as c replacements.

In the preferred embodiment, the sustainable ternary blended concrete made with silica fume and zeolite improves the workability, strength, and durability of conc composition of the making sustainable ternary blended concrete mix consisting of 10% silica fume and 5% zeolite as cement replacements.

The addition of zeolite as a replacement for cement decreases the workability of concrete as compared to the control mix. The inclusion of 10% silica fume as a replacement for cement enhances the workability of concrete in comparison with the control mix. The combination of 10% silica fume and 5% zeolite as cement replacements exhibits comparable results with the control mix. The inclusion of these proportions as cement replacements further improves the strength and dura concrete.

The proposed sustainable ternary blended concrete is, Claims: 1. Process for the preparation of sustainable ternary blended concrete with 10% silica fume and 5% as cement replacements w.r.to weight of cement, said process comprising of following steps.

- The sustainable ternary blended concrete in claim 1 wherein the admixture is used in an amount of 1% by weight of the total composition.
- The sustainable ternary blended concrete in claim 1 wherein the material is cured in water for a minimum of 28 days to achieve optimal mechanical properties
- A method for producing the sustainable ternary blended concrete of claim 1, comprising the steps of mixing the fine aggregate, coarse aggregate, water, cemei fume, zeolite, and admixture to form a homogenous paste; casting the paste into molds; and curing the molded material in water for a specified duration

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