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INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

(PROF. (DR) UNNAT P. PANDIT)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS

7th OCTOBER, 2022

(54) Title of the invention : A METHOD AND SYSTEM TO ENHANCE THE PROPERTIES OF CEMENTITIOUS PRODUCT

<p>(51) International classification :C04B0028040000, C04B0028000000, B01F0007300000, C04B0028080000, B01F0007000000</p> <p>(31) Priority Document No :NA</p> <p>(32) Priority Date :NA</p> <p>(33) Name of priority country :NA</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number:NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant : 1)R.V. College of Engineering Address of Applicant :Mysore Road, R. V. Vidyaniketan Post, Bangalore – 560059, Karnataka, India. Karnataka India</p> <p>(72)Name of Inventor : 1)Ujwal Shreenag Meda 2)Radhakrishna 3)Sachin K C</p>
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(57) Abstract :

A geopolymer wet mix characterized by a flowability of 110% attained by mixing the first set of ingredients such as the Ground Granulated Blast Furnace Slag (GGBS) and the Class F fly ash in a Conical Screw Mixer (Nauta Mixer) for a specific duration to get the dry mix, followed by the addition of Activator Solution (Reaction Generation Liquid) to the dry mix and mixing in a conventional mixer such as Mortar Mixer for a specific duration to get the wet mix wherein there is a reduction in RGL consumption to attain a flowability of 110%, increase in compressive strength and refinement in the microstructure of the geopolymer paste cubes prepared using the wet mix when the dry mix is prepared in the Nauta Mixer instead of a conventional mixer. Also, the same procedure was followed by mixing the first set of ingredients with the Nanoparticles for enhancement in compressive strength and refinement in the microstructure of the geopolymer paste cubes. Also, the same procedure was followed by mixing the first set of ingredients with the fine aggregates for enhancement in compressive strength of the geopolymer mortar cubes. Also, the same procedure was followed by mixing the first set of ingredients with the fine aggregates and the Nanoparticles for enhancement in compressive strength of the geopolymer mortar cubes. Also, an Ordinary Portland Cement (OPC) wet mix characterized by a flowability of 110% attained by mixing the OPC with the Nanoparticles in a Conical Screw Mixer (Nauta Mixer) for a specific duration to get the dry mix, followed by the addition of water to the dry mix and mixing in a conventional mixer such as Mortar Mixer for a specific duration to get the wet mix wherein there is an increase in compressive strength and refinement in the microstructure of the OPC paste cubes prepared using the wet mix when the dry mix is prepared in the Nauta Mixer instead of a conventional mixer. Also, the same procedure was followed by mixing OPC with the fine aggregates for enhancement in compressive strength of the OPC mortar cubes. Also, the same procedure was followed by mixing OPC with the fine aggregates and Nanoparticles for enhancement in compressive strength of the OPC mortar cubes.

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