

Construction technology for improving concrete surface quality

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Abstract

The reinforced concrete is widely used in the current building system; there are several finishing-free concrete surface techniques for the time being, but the undesirable phenomena affecting flatness and smoothness, such as air voids, pores, honeycombs and cold joints on the completed surface often appear. For this study, the Vibration Degassing Machine(VDM) was created and patented which is used to conduct the second partial ramming modification on the interfaces between concrete and formworks that eliminates the air voids on concrete surface efficiently and reduces the pits after removing formworks to enhance the smoothness on concrete surface which ideally presents the beauty of original design.

Keyword : Finishing-free Concrete, Quality Control, Construction Technology, Air Voids, Honeycombs, Vibration