
ABSTRACTS

*Received: 09 Nov. 2017**Accepted: 30 Nov. 2017***THE ISSUE OF THE COMPRESSIVE STRENGTH OF FINE-GRAINED
REINFORCED CONCRETE**

(pages 1-5)

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Keywords: concrete, high-quality, charts, model

Abstract: To obtain high-quality concrete constructions it is not enough to execute it only in concrete of high class. One of the effective ways to improve the reliability and durability of concrete is its reinforcing by various kinds of fibers. The article presents the researching results of the influence of brands of portland cement and disperse reinforcing by polyethylene terephthalate fibers (PET-fiber) on concrete durability. Standard compression tests of the cubical prototypes of fine-grained sand concrete made of two brands of portland cement – PC400 and PC500 with different percentage of PET-fibers have been conducted. The optimum content of PET-fibe, wherein there is a maximum increase of durability of fine-grained fiber-reinforced concrete, has been set.

*Received: 12 Nov. 2017**Accepted: 02 Dec. 2017***EVALUATION OF QUANTITATIVE AND QUALITATIVE INDICATORS
OF GROUNDWATER IN TERMS OF THEIR USABILITY AS A PRIMARY
ENERGY SOURCE FOR HEAT PUMPS**

(pages 7-24)

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Keywords: heat pump, groundwater quality, quantity of groundwater, hydrogeological conditions

Abstract: The central aim of this article was based on knowledge of the quality and quantity of groundwater on the territory of the Slovak Republic to determine appropriate placement selected heat pumps water / water type. It was necessary to determine the technical parameters of selected devices and their requirements for quality and quantity of primary heat source, ie groundwater and hydrogeological conditions of Slovakia. As a bonus this article provides an overview of current developments in the Slovakian market for heat pumps.

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VERIFICATION OF OPERATING CHARACTERISTICS OF PNEUMATIC ARTIFICIAL MUSCLES WITH THE REAL TIME CONTROL SYSTEM

(pages 25-28)

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Keywords: PAM, vibrations, PWM

Abstract: The article describes an experimental device based on the antagonistic involvement of pneumatic artificial muscles, a draught for changes of the experimental device, made to provide possibilities for a more fluid operation of the device and at the same time measurement of the operational characteristics. The article also describes a test measurement performed to verify its performance characteristics using a wide-pulse modulation.
