

عنوان مقاله:

Technical and economic evaluation of polycarboxilat super plasticizer on concrete mechanical properties

محل انتشار:

ششمین کنگره ملی عمران، معماری و توسعه شهری (سال: 1398)

تعداد صفحات اصل مقاله: 13

نویسندگان:

Mahmoud Salim Movafagh - MSc, Department of Civil Engineering, Safadasht Branch, Islamic Azad University, Iran

Masoud Golshani - PhD, Civil Engineering department, Damavand Branch, Islamic Azad University, Damavand, Iran

خلاصه مقاله:

Carboxilat super-lubricating additive concrete is an efficient and unique product based on ether polycarboxilat. Polycarboxilat super-lubricant in concrete that reduces concrete mixing water and improves the spread of cement particles. In this research, the effect of adding super-lubricants on mechanical properties of concrete, including compression strength, slump, etc. will be discussed. Therefore, the polycarboxilat super-lubricant will be used in the mixing scheme. The percentages of each of the above mentioned liquids have been compared to the mixing design and the technical and economic evaluation of the non-super-lubricant concrete. Based on the results of the comparison of the slump variations in water-cement ratio in different cement-grade concrete with polycarboxilat lubricant, the slump parameter has been decreasing with increasing water-to-cement ratio. Also, with an increase in the cement content of concrete in a constant water to cement ratio, less concrete was more slag. It has also been observed that with increasing polycarboxilat lubricant, the slump parameter has generally been upward. Also, with increasing the cement content of concrete in the percentage of lubricant of polycarboxilat constant, more concrete had less slump content. In addition, according to the results of variations in compressive strength versus water to cement ratio in concrete samples with different grades of cement and polycarboxilat lubricants, the amount of compressive strength has decreased with increasing water to cement ratio. Finally, it has been observed that with increasing polycarboxylic lubricant, the amount of compressive strength increased, due to the reduction of water to cement ratio. Also, the increase in cement content has led to an increase in the compressive strength of the samples

کلمات کلیدی:

Technical evaluation, additives, lubricants, polycarboxilats, concrete

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