عنوان مقاله:

Laboratory Studies for Selection of Suitable Chemical Admixture in Zirdan RCC Dam

محل انتشار:

دومین کنفرانس بین المللی مقاوم سازی لرزه ای (سال: 1388)

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خلاصه مقاله:

The use of chemical admixtures in hydraulic-cement concrete mixtures has been common in recent decades for different purposes. Zirdan dam as the 2nd reservoir RCC dam in Iran has about 220,000 m3 conventional vibrated concrete (CVC) –including mass and reinforced conventional concrete- and 280,000 m3 roller compacted concrete (RCC). Due to the hot climate of Zirdan district, suitable admixtures should be used to prolong workability and reduce the cementitious content and help prevent thermal problems. Some different kinds (brands types) of plasticizers and super-plasticizers were tested in the dam local laboratory. Retarding effects of admixtures were tested also.The test program included normal consistency test of cement paste plus admixtures and making some trial concrete mixtures to investigate water reducing effect and compressive strength. Eventually the selected admixtures due to technical aspects had been compared economically. After the laboratory testing stage, the two top selected admixtures have been brought to dam site and used in site test to finalize the best option. In this paper the commercial name of admixtures and their producers will not be mentioned and just be named A, B, and etc.

کلمات کلیدی:

Chemical Admixture, Normal Consistency, Water Reducing Effect, Zirdan RCC Dam