عنوان مقاله:

Experimental Formula between Compressive Strength of Portland cement with it's Major Oxides and Fineness

محل انتشار:

نخستین کنفرانس بین المللی بتن (سال: 1388)

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خلاصه مقاله:

In this experimental study, the relation of compressive strength of Portland cement at 28 days with its major oxides and fineness as an experimental formula has been contemplated. The most important property of Portland cement is its compressive strength that depends on chemical and physical properties especially major oxides and fineness. The laboratory results indicate that there is a direct relationship between oxides and fineness of the cement with its compressive strength. For any given value of the major oxides and fineness of cement, the compressive strength could be obtained with acceptable precision. Previous proposed experimental formulas for estimating the 28 days compressive strength of cement may have some errors and low accuracy. Because they have been designed with cement phases which calculated Bogue method and in this method major assumed phases are not the actual phases. In the other hand, expressing any relationship between compressive strength and Bogue cement phases makes errors and is not recommended. By using the offered experimental formula between cement oxides and its fineness with compressive strength, cement can be produced by high quality and low energy.

کلمات کلیدی:

Portland cement, Major Oxides, Fineness, Compressive Strength

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