

عنوان مقاله:

Effect of copper slag on mechanical properties of self-compacting concrete

محل انتشار:

نهمین کنگره بین المللی مهندسی عمران (سال: 1391)

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خلاصه مقاله:

The building industry is turning increasingly to the use of self-compacting concrete (SCC) in order to improve many aspects of building construction as SCC offers several advantages in technical, economical and environmental terms. Fresh SCC flows into place and around obstruction under its own weight to fill the formwork completely and self-compact without any segregation and blocking. Copper slag is a by-product obtained during the matte smelting and refining of copper. Current options of management of this slag are recycling, recovering of metal, production of value added products and disposal in slag dumps or stockpiles. This paper presents the result of a study undertaken to investigate the feasibility of using copper slag as a fine aggregate in self-compacting concrete. The results indicate that 30% of copper slag can be successfully used as sand replacement to obtain SCC with comparable strength characteristics

کلمات کلیدی:

Self-compacting concrete, Copper slag, Silica fume, Mechanical properties

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