عنوان مقاله:

Corrosion Behavior of Coated Rebar in Self-Compacting Concrete in Simulated Marine Substructure Environment

محل انتشار:

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خلاصه مقاله:

The building industry is progressively to use self compacting concrete (SeC) in order to improve many aspects of construction. sec is highly workable concrete that can flow under its own weight and adequately fill all voids. Reinforced concrete is one of the most important structural materials used in the construction industry worldwide. The corrosion of reinforcing steel presents a major durability issue worldwide and is the focus ofmost research activities. The corrosion of rebar is most frequently the result of the chloride- induced. breakdown of the passive :film formed in the high alkaline condition of concrete. In the present investigation the corrosion behavior of coated rebar in sec has been studied. Rebar were coated with: 1) epoxy 2) Zinc- Rich 3) Zinc-Aluminum - Rich. To simulate marine substructure environment, macro cell corrosion has been created via chloride concentration gradient. Test condition and methods of macro cell current measurement described in ASTM G 109-92 were followed.. Other nondestructive .electrochemical tests have also been performed on the specimen

كلمات كليدى:

corrosion, reinforced concrete, coated rebar, electrochemical test

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