



Optimizing Performance of Concrete Structures with Zinc Coat-ed Reinforcing Steel

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ABSTRACT:

Corrosion of reinforcing steel bar is a significant cause of concrete failure, causing expensive repairs and premature structure replacements. Galvanizing provides proven corrosion protection for reinforcing steel significantly extending the life of concrete bridge structures. Whether applied by the traditional batch hot dip process or the new continuous galvanizing process, zinc coatings protect reinforcing steel both as a barrier coating and as a sacrificial anode. The properties of galvanized reinforcing steel and its contribution to improvement of concrete performance of bridges will be presented together with the status of related product standards.

Keywords: Corrosion, Galvanizing, Batch-hot-dip-galvanizing, Continuous-hot-dip-galvanizing, Zinc-coatings, reinforcing-steel, Rebar, concrete-failure.