

Modeling Cementitious Materials Behavior

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ABSTRACT

Cementitious materials are subject to loads related with the environment of civil engineering constructions. Such physical or chemical loads may lead to instantaneous or delayed changes in construction elements, including material degradation, as in the case of steel corrosion or chemical and abrasion attack to concrete. Modeling phenomena related with materials degradation has got significant improvement in the last decade, in the same time of a greater importance being given to the need of life time analysis of constructions, “designed” for periods of more than a century, in special cases, with proper care of maintenance and repair. Some models for concrete behavior are presented, taking into account the nature of degradation processes involved.

