عنوان فارسی مقاله:

یک مدل کلی برای ترک خوردنی ایجاد شده از فرسایش در سازه‌های

بتای پیش فشارده

عنوان انگلیسی مقاله:

A global model for corrosion-induced cracking in

prestressed concrete structures

توجه!

این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل

با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک کنید.
7. Conclusions

Based on theoretical analysis and experimental results, the following conclusions were drawn:

• The proposed model can predict, within reason, the corrosion loss of strand in PC structures from corrosion initiation to concrete cracking by using the comparison between theoretical and experimental results. The predicted errors are acceptable in view of the complexity of the corrosion process.

• The movement of corrosive liquid between crevices could lead to corrosion extension along the beam length and could accelerate the corrosion rate of the strand. Under the coupling effects of prestress, twisted shape and large diameter of strand, very slightly corrosion can lead to the cover cracking in PC structures.

• Corrosion-induced crack increases significantly the risk of beam failure. The failure load degradation caused by corrosion-induced cracking is more significant in PC structures than that in RC structures.