

**STEEL FIBER HIGH-STRENGTH CONCRETE FOR
EARTHQUAKE STRENGTHENING OF R/C
STRUCTURES WITHOUT THE USE OF
CONVENTIONAL REINFORCEMENT**

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Summary

In this study a new innovative method of earthquake-resistant strengthening of reinforced concrete structures is presented for the first time. Strengthening according to this new method consists of the construction of steel fiber high-strength concrete jackets without conventional reinforcement which is usually applied in the construction of conventional reinforced concrete jackets (i.e. longitudinal reinforcement, stirrups, hoops). The proposed in this study new innovative steel fiber high-strength concrete jacket were proved to be at least equally effective as the reinforced shotcrete jackets and the FRP-jackets when used for the earthquake-resistant strengthening of reinforced concrete structural members.

