

Abstract

The global behavior of reinforced concrete beams under pure torsion is studied in this thesis. This study includes beams with rectangular plain cross section. Both normal and high strength concrete beams are concerned. The theoretical study is based on the Softened Membrane Model (SMM).

The theoretical models were analyzed to characterize the pre-cracking and post-cracking responses of the beams under torsion.

In order to evaluate the results for the theoretical model, the predictions were compared with several experimental results from studies found in bibliography.