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PII: S2352-0124(17)30023-1
DOI: doi: 10.1016/j.istruc.2017.04.004
Reference: ISTRUC 187

To appear in: *Structures*

Received date: 19 January 2017
Revised date: 19 April 2017
Accepted date: 19 April 2017

Please cite this article as: Muhd Fauzy Sulaiman, Chau-Khun Ma, Nazirah Mohd Apandi, Sofrie Chin, Abdullah Zawawi Awang, Shaiful Amri Mansur, Wahid Omar , A Review on Bond and Anchorage of Confined High-strength Concrete. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Istruc(2017), doi: 10.1016/j.istruc.2017.04.004

A review on bond and anchorage of confined high-strength concrete

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Highlight

- With the increase of concrete compressive strength, the bond and anchorage of reinforced concrete become higher.
- The design of bond and anchorage for high-strength concrete is largely based on the experimental results of normal strength concrete.
- Pull-out test is commonly used to determine bond strength of embedded reinforcement, while simply supported beam is the test used to evaluate lap splice and end anchorage behaviour.
- Confinement has been reported to have increase the bond and anchorage of high-strength concrete.

ABSTRACT

The interaction between reinforcement bars and concrete is particularly essential in predicting the ultimate failure of reinforced concrete (RC) elements. It is particularly important to understand the bond and anchorage behaviour of reinforcement bars with the surrounding concrete. The current codes of practice in designing anchorage length in high-strength concrete (HSC) were scarce and were extrapolated from the experimental results of normal strength concrete (NSC). It has