Evaluation of Deformation Performance and Flexural Strength of Steel Reinforced Concrete Column Using High-Strength Materials

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To use high-strength materials for steel reinforced concrete (SRC) members, it is necessary to clarify deformation performance of SRC members with such high-strength materials. This paper described the applicability of current formula to SRC members made of high-strength materials and clarified the point that should be noted. For SRC members made of high-strength materials, cyclic loading tests were performed and their deformation performance was evaluated. As a result, by limiting the maximum hoop ratio to 0.3%, it was confirmed that the load-displacement relationship of SRC members made of high-strength material can be evaluated by current calculation formulae.