

Comparison of the Effect of Strand Diameters, Providing Beam to Column Connection

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Abstract : In this study, the effect of pre-stressed strand diameters, providing the beam-to-column connections, was investigated from both experimental, and analytical aspects. In the experimental studies, the strength and stiffness, the capacities of the precast specimens were compared. The precast specimen with strands of 15.24 mm reached an equal strength of the reference specimen. Parallel results were obtained during the analytical studies from the aspects of strength, and behavior, but in terms of stiffness, it was seen that the initial stiffness of the analytical models was lower than that of the tested specimen.

Keywords : post-tensioned connections, beam to column connections, finite element method, strand diameter

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