

PREFABRICATED BUILDING FORMWORK COMPONENT FOR CAST-IN-PLACE

Abstract

A prefabricated building formwork component for cast-in-place applicable to columns or beams is provided, comprising a cylindrical form shell and stirrups fixed to the form shell, wherein an upper end and a lower end of the form shell are provided with mating portions adapted to mate with adjacent form shells; wherein the form shell is formed by enclosing steel plates, and the stirrups are jointly comprised of the steel plates and rod-shaped components fixedly connected to inner sides of the steel plates. A prefabricated building shear wall component for cast-in-place and a prefabricated building floor slab component cast-in-place are further provided. The loading test results show that the prefabricated formwork component for cast-in-place applicable to columns or beams can better confine the inner cast concrete, particularly by enlarging the confined region, thereby improving the overall shear resistance and load-bearing capacity of the building, which is of great significance for seismic performance under earthquake conditions.

Fig 1.