

METHODS AND DIAGNOSTIC TECHNIQUES USED TO ANALYSE THE TECHNICAL STATE OF REINFORCED CONCRETE STRUCTURES

METODY I TECHNIKI DIAGNOSTYCZNE STOSOWANE W OCENIE STANU TECHNICZNEGO KONSTRUKCJI ŻELBETOWYCH

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Abstract

The paper presents the problems concerning the principles of developing expertise and performing tests on reinforced concrete structures. The situations that justify the need to provide expertise, the subject of which are constructions made of reinforced concrete, are described. A layout of the content of expertise that is usually adopted in practice has been included and commented on. The basic principles that should be followed when diagnosing the structures in question are provided. The available diagnostic methods and techniques, including non-destructive and semi non-destructive ones, are reviewed. This review is enriched with classifications that facilitate the selection of specific methods for individual diagnostic needs. In addition, useful literature with regards to the discussed topic has been indicated.

Streszczenie

W artykule przedstawiono problematykę dotyczącą zasad wykonywania ekspertyz i badań konstrukcji żelbetowych. Przybliżono sytuacje uzasadniające potrzebę sporządzania ekspertyz, których przedmiotem są konstrukcje wykonane z betonu zbrojonego. Zamieszczono i skomentowano, przyjmowany zazwyczaj w praktyce układ treści ekspertyzy. Podano podstawowe zasady, których należy przestrzegać podczas diagnozowania przedmiotowych konstrukcji. Dokonano przeglądu dostępnych metod i technik diagnostycznych, w tym nieniszczących i seminieniszczących. Przegląd ten wzbogacono klasyfikacjami ułatwiającymi doboru odpowiednich metod do konkretnych potrzeb diagnostycznych. Ponadto wskazano przydatną w rozpatrywanym temacie literaturę.

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