

CEMENT CONCRETE MADE FROM ENVIRONMENTALLY FRIENDLY WASTE MATERIALS

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Rezumat. *Reciclarea deșeurilor reprezintă un factor important în conservarea și întreținerea resurselor naturale, contribuind astfel la îngrijirea și îmbunătățirea mediului înconjurător. Lucrarea își propune să demonstreze eficiența utilizării materialelor reciclate (sticlă, cenușă de termocentrală) la prepararea betoanelor de ciment cu urmărirea în comportare prin determinarea caracteristicilor fizico-mecanice și interpretări ale valorilor obținute; precum și utilizarea deșeurilor rezultate din construcții, ca de exemplu: betoane provenite din demolarea fundațiilor, platformelor, structurilor de rezistență a clădirilor sau a altor elemente de beton ca agregate pentru prepararea betoanelor.*

Abstract. *Waste recycling is an important factor in the conservation and maintenance of natural resources, thus contributing to the care and improvement of the environment. The paper aims to demonstrate the efficiency of using recycled materials (glass, thermal plant ash) in the preparation of cement concrete with behavioral monitoring by determining the physical-mechanical characteristics and interpretations of the values obtained; as well as the use of construction waste, such as concrete from the demolition of foundations, platforms, building structures or other concrete elements as aggregates for the preparation of concrete.*

Keywords: Concrete, Recycled materials, Technical assessment document

1. Introduction

The introduction of recycled materials (glass, plastic, textile fibers) in the preparation of cement concrete is not a new approach. Experimental studies have been carried out for more than 20 years and technical assessment have been drawn up for cement concretes in which some of the classic materials (aggregates, cement, filler) are replaced with recycled materials.

Many approved products or studied in the laboratory have been put into practice in construction works, such as:

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