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M. R.Vasić[1]
Z. Radojević[2]
M.V.Vasić[3]

POTENCIJALNA UPOTREBA BETONSKOG OTPADA KAO DODATKA U OPEKARSTVU

Rezime: *U radu je ispitivana mogućnost korišćenja mlevenog betonskog otpada kao aditiva u proizvodnji opekarskih proizvoda. Uzorci betona, poznate klase izloženosti, klase čvrstoće pri pritisku, i klase konzistencije, su prvo sprašeni a zatim su formirani komoziti. Udeo zamene osnovne sirovine mlevenim betonskim otpadom se kretao od 10 do 30%. Karakterizacija sirovina je uključivala određivanje hemijskog, mineraloškog (XRD,DTA/TG) i granulometrijskog sastava. Izvršena su i dilatometrijska ispitivanja. Praćeno je ponašanje pri oblikovanju, sušenju i pečenju. Sa povećanjem sadržaja betonskog otpada vrednosti čvrstoće pri pritisku opadaju. Čak i kod uzoraka sa najvećim procentom betonskog dodatka nije zabeležena vrednost čvrstoće pri pritisku ispod 9 MPa. Rezultati su ukazali da mleveni betonski otpad može da ima primenu u opekarstvu.*

Ključne reči: *mleveni betonski otpad, reciklaža, glinene opeke, održivi razvoj*

POTENTIAL APPLICATION OF CONCRETE WASTE AS ADDITIVE IN THE CLAY MASONRY UNITS INDUSTRY

Abstract: *The paper examines the possibility of using ground concrete waste as an additive in the production of brick products. Concrete samples with known exposure classes, compressive strength and consistency classes, were grounded and powdered. The replacement weight fractions of the raw material with prepared concrete waste was varying from 10 to 30%. The characterization of the raw materials included the determination of chemical, mineralogical (XRD, DTA/TG) and granulometric composition. Dilatometry tests were also performed. Properties of the composites during forming, and after drying and firing were determined. When the concrete waste content is increased the corresponding products mechanical strength is decreased up to the 8 MPa. The results indicated that ground concrete waste can be used as an additive material in the brick industry.*

Key words: *grounded conrate waste, recyicling,clay brick, sustainability*

[1] dr Miloš Vasić, dip.inž. tehnologije, naučni saradnik, Bulevar vojvode Mišića 43, milos.vasic@institutims.rs
[2] dr Zagorka Radojević, dip.inž tehnologije, naučni savetnik, Bulevar vojvode Mišića 43, zagorka.radojević@institutims.rs
[3] dr Milica Vasić, dip.inž tehnologije, viši naučni savetnik, Bulevar vojvode Mišića 43, milica.vasić@institutims.rs

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