

## COMPORTAREA IN TIMP A BETOANELOR PREPARATE CU DIFERITE TIPURI DE CIMENTURI

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### REZUMAT

In acest articol se prezinta rezultatele unor cercetari experimentale desfasurate la INCERC pentru determinarea unor caracteristici ale betoanelor preparate cu diferite tipuri de cimenturi si aditivi. S-a urmarit determinarea unor caracteristici fundamentale pentru caracterizarea durabilitatii betoanelor. Pentru beton proaspat s-au determinat raportul A/C si tasarea, iar pentru betonul intarit rezistentele la 28 si 360 de zile, permeabilitatea, absorbtia, carbonatarea, rezistenta la inghet-dezghet etc. S-a urmarit determinarea influentei tipului si dozajului de ciment, raportului A/C asupra unor caracteristici importante ale betonului intarit care influenteaza comportarea in timp a acestuia. S-au preparat betoane cu cimenturi de tip II A-S 32,5R, II A-M 32,5R, II B-M 32,5R, II B-S 32,5R si I 42,5 R.

*Cuvinte cheie:* ciment, aditivi, carbonatare, durabilitatea betonului

## TIME-DEPENDENT BEHAVIOR OF CONCRETE PREPARED WITH DIFFERENT CEMENT TYPES

### ABSTRACT

The paper presents the results of experimental research performed at INCERC for the determination of certain characteristics of concrete prepared using various types of cements and additives. The determination of some fundamental parameters for the characterization of concrete durability was planned. For fresh concrete, the water-cement ratio and the settlement of the concrete were determined. For hardened concrete, parameters as the 28-day and the 360-day strength, the permeability, the absorption, the carbonatation, the freeze-thaw strength etc. were determined. The influence of cement type and dosage and of water-cement ratio to some important characteristics of hardened concrete, which control the time-dependent behavior of this material, was studied. Concrete samples were prepared with cements of types II A-S 32,5R, II A-M 32,5R, II B-M 32,5R, II B-S 32,5R and I 42,5 R.

*Keywords:* cement, additives, carbonatation, concrete durability