LATVIA UNIVERSITY OF AGRICULTURE
FACULTY OF RURAL ENGINEERING
DEPARTMENT OF ARCHITECTURE AND BUILDING
DEPARTMENT OF STRUCTURAL ENGINEERING

LATVIJAS LAUKSAIMNIECĪBAS UNIVERSITĀTE
LAUKU INŽENIERU FAKULTĀTE
ARHITEKTŪRAS UN BŪVNIECĪBAS KATEDRA
BŪVKONSTRUKCIJU KATEDRA

CIVIL ENGINEERING '11

International scientific conference

ABSTRACTS

BŪVNIECĪBA '11

Starptautiskā zinātniskā konference

ABSTRAKTI

Jelgava 2011

ISBN 978-9984-48-048-0

Technical editors: J. Ķikulis, R. Brencis, U. Skadiņš

Supported by:

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EXPERIMENTAL STUDY ON CREEP OF NEW CONCRETE MIXTURES

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The aim of this study was to experimentally investigate the creep behavior of new concrete compositions in order to evaluate the possibility of using glass powder and small clay particles as active additives in concrete replacing cement. Three concrete mixes were designed and prepared, then several 160x40x40mm specimens of each batch were made and tested. Specimens were subjected to a uniform compression load kept constant over a long period of time in a constant room temperature and with a constant level of moisture (see Fig.1). Specimens were hardened in two extreme environments: in one case there was 100% humidity provided by protecting the specimens from desiccation and in the other case specimens were air-dried and protected from any moisture. Compression strength and modulus of elasticity of 7 and 28 days old samples was determined and compared with those of standard concrete.

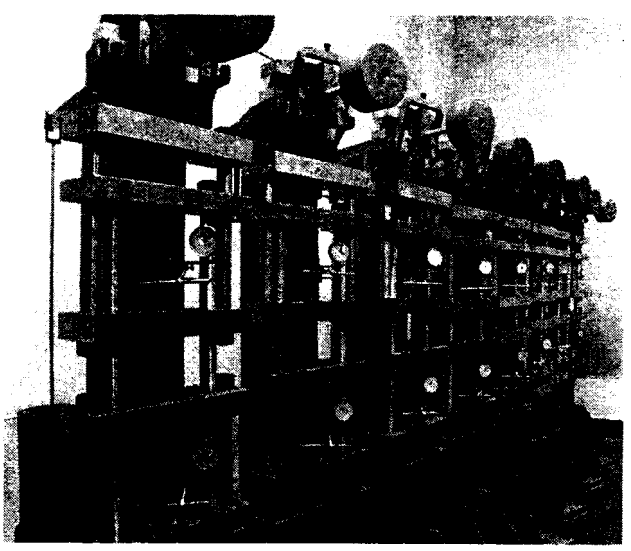

Fig. 1. Creep test frames