PROCESSING AND APPLICATION OF CERAMICS

VII Students' Meeting

SM-2007

Faculty of Technology
University of Novi Sad

December 6–8, 2007

Programme and Book of Abstracts of The Seventh Students' Meeting – SM-2007, "Processing and Application of Ceramics" publishes abstracts from the field of ceramics, which are presented at traditional international Students' Meeting.

Editors-in-Chief
Prof. Dr Vladimir V. Srdić
Prof. Dr Jonjaua Ranogajec

Publisher
Faculty of Technology, University of Novi Sad
Bul. cara Lazara 1, 21000 Novi Sad, Serbia

For Publisher
Prof. Dr Zoltan Zavargo

Printing layout
Marija Maletin, Ivan Šefer

Production
VERZAL, Novi Sad, Serbia

CIP – Каталогизација у публикацији
Библиотека Матице српске, Нови Сад

666.3/.7(048.3)

STUDENTS' Meeting School of Ceramics (7 ; 2007 ; Novi Sad)

Programme and book of abstracts / The Seventh Students' Meeting – SM-2007 Processing and Application of Ceramics, December 6–8, 2007 ; editors Vladimir V. Srdić, Jonjaua Ranogajec. – Novi Sad : Faculty of Technology, 2007 (Novi Sad : Verzal). – XI, 86 str. : ilustr. ; 24 cm

Tiraž 120. – Bibliografija. – Registar.

ISBN 978-86-80995-62-5

a) Керамика – Технологија – Апстракти

COBISS.SR-ID 226695943

after 30 days was 1.2 wt%. The permeability and the form coefficient of the porous composite were $K_0 = 0.12$ Da and $C_0 = 4.53 \cdot 10^5$ m^{-1}, respectively. The porous composite shows great potential for use as filters, diffusers for water aeration, dust collectors, acoustic absorbers, etc.

T3

ADDITIVES IN CLAY BRICK INDUSTRY: POROSITY IMPROVING

Milica Arsenović, Miloš Vasić, Zagorka Radojević
Institute for testing materials IMS, Belgrade, Serbia

There are many different organic and inorganic additives which may be used in clay brick industry. These substances are used to improve brick porosity, while decreasing drying time and firing energy consumption. This way, reductions of both products volume mass and thermal conductivity occur.

Problems which may befall are clay plasticity decreasing and overfilling with organic additives which can lead to uncontrolled energy releasing during firing. Generally, every density reduction involves remission of compressive strength and thermal conductivity. That is why additives composition should be precisely examined by identifying their effects on porosity improving.

The main objective of this study is to investigate utilization potential of some organic additives in clay bricks. Concrete, the effects of soy crust, wood cutting and coal chat material addition on both durability and mechanical properties of the bricks were investigated. Different ratios of the clay deposit were added in raw-brick clay. The samples (plates, bricks and cubes) were tested by using the standard test methods and compared.

As a result, it was concluded that these materials can be used in building bricks by taking advantage of low cost and environmental protection, whereby thermal conductivity decreases.