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| Organizing Committee of the 8th International Scientific-practical conference **Experience in manufacturing and using cellular autoclave-hardened concrete**  220005 Minsk, Platonova st., 22, of. 705.  Tel./fax (+375 17) 292 49 56, 292 79 43, 292 79 44, mob. (+375 29) 611 66 20 | |  | |
| **June 11 – 13 2014** | E-mail: bsr@telecom.by | |

***Dear Colleagues!***

One of the main conditions of energy saving is the reduction of heat losses through the heat contour of the building. Currently, Belarusian cellular concrete manufacturers are capable of providing cited thermal resistivity on the normative level (Rт norm = 3,2 m2 оС/W). But the requirements for thermal resistivity are constantly becoming stricter. In accordance with the approved in the Republic Program on energy saving starting from 2015, 60% of the residential buildings have to be built in an energy saving execution. It is implied that the structural solution of the building’s shell and it’s engineering equipment (first of all ventilation with recuperation) should guarantee heat losses of the building not exceeding 60 kW hour/m2 per year in a multi-storey and 90 kW hour/m2 per year in a single-storey execution.

Experience in construction of energy-saving residential buildings suggests that to guarantee the compliance with these norms, thermal resistance has to be raised up to the level of Rт norm = 6 m2 оС/W. It is difficult to obtain it in cellular concrete walls with a density of 400-500 kg/m3, and investors are categorically against increasing the thickness of the wall because this solution takes away the commercially exploitable area. There is one conclusion that comes to mind: structural and thermoinsulating cellular concretes with reduced density are necessary, as well as structural solutions of the details of single-story and multi-storey buildings that will guarantee the increased thermal resistance of walling.

Certain knowledge is accumulated in the Republic, completed by the developments of scientists from Russia and Ukraine , enriched by the accomplishments of Masa GmbH (Germany) in the manufacturing of light cellular concretes and German structural solutions.

The percentage of individual residential construction is increasing, which overall is a global trend. Visit to the exposition on residential construction in Hyvinkää (Finland) in 2013 and to the demo-village “Blue Lagoon” (Vienna, Austria) allowed to make a conclusion that ca. 75-80% of single-family residences are built on the basis of a timber frame with an effective insulator, but more often with the use timber panels. Timber is a renewable resource, requires little energy to be made into a structural element, is easily recycled upon ending of its lifecycle and thus is recommended by the European directives to be used as a walling material. Insulation in the panel allows to increase thermal resistance of the walls and floors up to 12-16 units and to introduce the newly constructed building in an elite “club” of buildings with zero energy consumption. Also, high readiness of the panels upon fabrication allows to construct a residential house in 3-5 days.

Cellular concrete does not have such arguments. Except for maybe the trust to the thermoinsulating and structural characteristics, which allows to form an opinion: “my house is my fortress”. And while this trust exists, a purposeful work in the direction of creating a thermal shell of the building from cellular concrete and raising its thermal resistance to the level of 12-16 m2 оС/W per year is necessary. ***Efficient structural-thermoinsulating cellular concrete as well as innovative structural solutions are necessary*.** Without understanding this necessity and utilization of defensive measures, other structural systems may in the nearest future replace cellular concrete from mass construction in Belarus, and in the whole CIS area.

Thus, a goal of uniting the forces of scientists, manufacturers of modern equipment, technologists, civil works contractors becomes increasingly urgent. The 8-th International Scientific-Practical Conference “Experience in manufacturing and using cellular autoclave-hardened concrete” (11-13 June 2014, Minsk and Mogilev), which is meant to investigate and develop solutions in utilization of cellular concrete blocks in energy saving construction and improvement of the speed of construction of buildings constructed with cellullar blocks, is devoted precisely to the consolidation of forces of all interested participants of the process of construction.

Thus, the organizing committee welcomes all interested persons to participate in the work of the conference, in the consolidation of the intellectual forces to search ways of solving the outlined problems. In addition to the plenary meeting a visit to CJSC “Mogilev’s KSI”, where high-tech, high performance, full cellular concrete manufacturing cycle equipment Masa GmbH (Germany) will be shown.

By the time of the conference, OJSC “Zabudova” holding managing company” plans to construct and show 2 cottages near Minsk: one with highly thermally resistant walls, second – of high fabricated readiness, i.e. a quickly erected building.

These objects can serve as prototypes of the energy efficient construction (thermal losses not exceeding 60 kW hour/m2 per year in a multi-storey and 90 kW hour/m2 per for individual construction). High speed of the construction of these building will be ensured not only by assembling lesser wall blocks into room-sized panels, but by the wider use of large reinforcement pieces.

We are looking forward to seeing you June 11-13, 2014 during the 8-th International Scientific-Practical Conference “Experience in manufacturing and using cellular autoclave-hardened concrete”

Faithfully yours, P. Tkachik,

Vice-Chairman of the Organizing Committee,

Director of SM LLC “Strinko”.

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