



**MATERIALS**

**Zherebtsov A. V. Construction mythology: breathing means living**

This article emphasizes that enclosing the contour of the building with stable and efficient system of thermal insulation that does not depend on the temperature and humidity changes, with a low ability to pass air would ensure minimum heat loss and favorable temperature conditions (p. 9).

**Isopan introduces Leaf**

Paper tells about the new Leaf technology, allowing improve the performance of metallic heat insulation sandwich panels. The novelty was presented at the International exhibition of architecture, materials and systems BAU 2017 in Munich (p. 14).

**EQUIPMENT**

**Red'ko Yu. B. Measurement of noise in the room of a residential building from the work of technical equipment**

Based on the analysis of regulatory documentation is suggested a methodology of measurement. Measurement results of noise in the room of the first floor of a multistory apartment building from the work equipment located in the basement obtained by means of this methodology are considered (p. 16).

**TECNOLOGIES**

**Muravyev P. A., Lukina-Lebedeva M. A., Tarakin A. V., Gorshkov A. S. Determination of the optimal layer thickness of thermal insulation for exterior walls of residential apartment building**

The technique of calculation of losses of thermal energy through the exterior walls of a residential building before and after additional insulation of facades with thermal insulation from mineral (glass) wool products with synthetic binders is performed in this paper. The facility is located in the Porkhov city, Pskov region. For this building, is calculated the optimum thickness of the additional layer of insulation, in which discounted payback period, it is calculated taking into account growth of tariffs for heat energy and discounting future cash flows, in that case optimum thickness has minimal value (p. 21).

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*Pobedinskiy V.V., Popov A.I.* **Coating design on the basis of ribbed slabs**

Article is devoted to design devices and coatings on the basis of ribbed slabs. Analysis of existing roof structures, the limitations, features is performed as well as fundamental requirements of a new constructive solution are identified. A design scheme with the necessary nodes and device technology of the roof is developed (p. 30).

#### INFORMATION

*Andrey Petrov.* **When «something wrong»: design errors**

Article deals with the main causes of issues because of logic absence in the «roof pie» work, as well as violations of the technology of its styling (p. 35).

**Solar panels or photovoltaic tiles: what to choose?**

This paper states that green products and solutions are becoming more relevant in the global construction industry. Taken into consideration the novelty of green building materials may be difficult to select the appropriate components that fit the requirements – especially given the certification systems LEED and BREEAM (p. 38).

*Alexey Voronin.* **One should analyze the thermal conductivity**

Paper points out that the conductivity of some materials may vary. Under what conditions and how rapidly this occurs is considered in given article (p. 41).

**How to protect panels from graffiti?**

This article analyzes the properties of the EQUITONE fibre cement panels produced by the Belgian company Eternit which are able to «resist» street graffiti (p. 44).

#### EVENTS

**Expert from NRU appreciates Euroskills 2016 roofers' competition**

For the first time in the history of the movement WorldSkills International competition in Gothenburg, Sweden, and as a part of the panel team was included Mikhail Levchenko, an expert from Russia – head of Educational center of the National Roofing Union (Russia). In this article he shares his impressions (p. 46).



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