



Construction industry in focus (p. 4).

MATERIALS

Kernik A.G. How to make sound insulation of walls and partitions in an apartment?

Article deals with the solutions that can significantly reduce the noise level that penetrates from the street or neighboring rooms (p. 10).

Kiseleva O.A., Malyshkov A.V. The influence of a three-layer panel design on its strength

This article analyzes the influence of a three-layer panel design with a sheathing from OSB boards and the thickness of the polystyrene foam layer on the mechanical properties. The optimal options for panels with different thicknesses of insulation were selected and the thermotechnical calculation of the optimal design was given (p.14).

Solar panels or photo galvanized roof tiles: what to choose?

Paper is about the environmental products and solutions are becoming increasingly relevant in the global construction industry. Given the novelty of green building materials, it may not be easy to choose the right components to meet your requirements, especially considering LEED and BREEAM certification (p. 17).

EQUIPMENT

Pobedinsky V.V., Popov A.I. The design solution of the coating on the basis of ribbed plates

Article is about the issues of designing and arranging coatings based on ribbed plates. The analysis of the existing roofing structures is carried out, the disadvantages, features are shown and the fundamental requirements for a new structural solution are determined. A design scheme with the necessary nodes and a roofing device technology were developed (p. 19).

Will chameleon solar panels appear on the roofs of the houses?

The note informs about the new project of the American start-up Sistine Solar, which created adaptive solar panels, which according to the developers can show an arbitrary image (p. 23).

Why does one need a drip for the roof and how to install it?

The article details the types of droppers and materials from which they are made, as well as installation technologies (p. 24).

TECHNOLOGIES

Konstantin Kozetov. Warm floor in a few steps: instructions for the use of eco-friendly thermal insulation

Getting up in the morning «from that foot» is easy if the bedroom has a floor that literally

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makes the morning warm. Residents of multi-apartment residential complexes, as a rule, do not need to think about floor insulation, but for frame house owners this issue is relevant. The answer to it can be an effective, economical and quick to implement solution – installing a warm floor on the logs – bars installed under the finish coating (p. 26).

Calculation of the beam on the bend – formulas and instructions

Paper is devoted to modern construction methods for calculating bar (beam) structures for strength and rigidity, which make it possible to determine the deflection value and draw a conclusion about the possibility of operating a building structure already at the design stage (p. 28).

Protasov V.P., Kalinin V.M., Averin B.N. Investigation of the influence of the temperature-humidity regime of attic rooms with pitched metal roofs on the process of ice and icicles formation

Authors agree that in order to study the influence of the temperature-humidity regime of attic rooms on the formation of ice on the roof, it's necessary to construct mathematical models of heat fluxes in non-stationary and quasi-stationary conditions with a changing outside air temperature and pressure drop on the inner and outer surfaces of the enclosing structures (p. 31).

INFORMATION

Redko Yu.B. To the question about soundproofing wall panels

On the basis of information analysis it is provided a methodology and there are obtained by means of experimental data acoustic wall panels depending on design, presence and type of fill material (p. 34).

Alice Pankratova. One who lives on the roof

If you are at the construction stage, or perhaps have already become the proud owner of a house or a flat-roofed garage, then it's time to think: is there to create a delightful oasis, a cozy picnic area or an outdoor sports ground on the roof? (p. 38)

Ekaterina Litvintseva. Redevelopment in Chinese: how MAD Architects team will change Milan

Redevelopment of industrial zones is a topic that is relevant not only for Russian cities. Specialists from the Chinese bureau MAD Architects share about how to give a second life to the «rust belt» of Milan (p. 42).

Irina Orlova. Flat roofs: what's new?

Paper deals with new technologies that can be used in the reconstruction of roofs of apartment buildings. The advantages of modern solutions are described (p. 44).



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