

Construction industry in focus (p. 4).

**How does quality in construction change?**

Over the past few decades, the construction industry has undergone significant changes. An important role in this process was played by TECHNINICOL. 27 years ago it started with the production of roofing material and in a short period introduced the domestic market to bitumen-polymer materials, PVC membranes, modern types of thermal insulation. How the market structure is changing, what challenges the industry will have to face in the near future, what are the forecasts for the short term, shares Evgeny Voilov, Vice President of TECHNINICOL (p. 10).

**MATERIALS**

*Konstantin Kozetov.* **Energy-efficient roof without screed: technologies and materials**

Flat roof can lose up to 20% of expensive heat without an effective insulation. Owners and investors of existing and under construction flat-roof buildings are well aware of this. That is why today in Russia industrial and residential buildings, public and commercial complexes with huge areas of flat roofs are actively insulated. Amid growth in energy, this is a recoupable investment. The question is different, how to make an energy-efficient roof as quickly and cheaply as possible? (p. 12).

**The rafter system of the four-slope roof**

Article describes the characteristics of the roof rafter system as well as the technology of its installation (p. 14).

**How to correctly warm overlaps over the ventilated underground?**

Overlapping over a cold basement or ventilated underground protects the interior of the house from heat loss. The main task of the insulating material here is thermal insulation. This article is about the material and solution offered by URSA (p. 18).

*Redko Yu.B.* **Soundproofing translucent structures**

A technique based on the information analysis is proposed and experimental data obtained on it for soundproofing window blocks made of PVC profiles are presented (p. 21).

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**EQUIPMENT****Levin A.F. Elimination of wave formation during roll calibration of coating layers in the production of soft roofing materials**

This paper is about the negative impact of the hydrodynamic effect (wave formation) on the quality of soft roofing and waterproofing materials. It manifests itself in the fact that the coating is formed with a relief wavy in the cross section. It is proved that the easiest way to eliminate wave formation is to stop and reduce the diameter of the calibrating roll. Created and introduced into the industry of soft roofing and waterproofing materials coating devices to ensure the application of even layers (p. 26).

**TECHNOLOGIES****Irina Orlova. Fire safety of sports facilities**

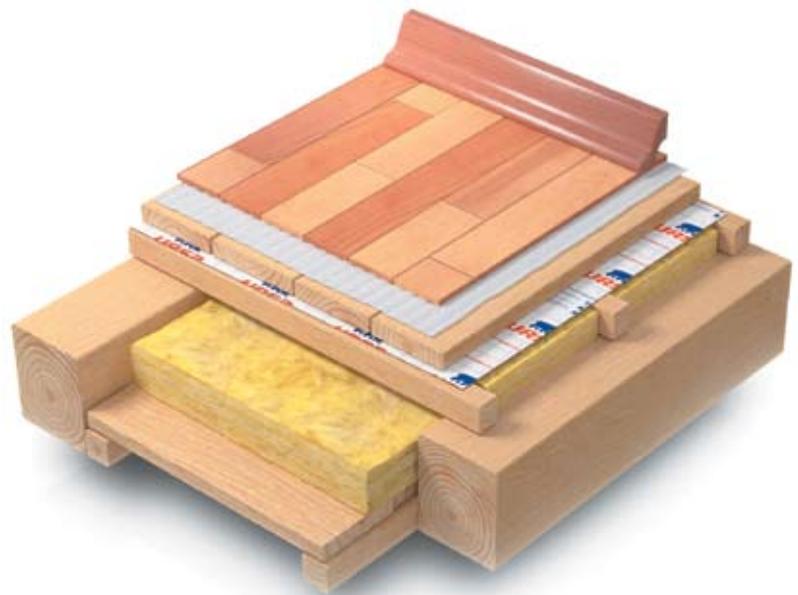
Paper deals with the norms and rules for ensuring fire safety at sports facilities. Examples of newly constructed facilities, such as stadiums «Kazan Arena», «Opening Arena» and the complex «VTB Ice Palace» are given. Also it is told about the experience of reconstruction of the Big Sports Arena in «Luzhniki Stadium» (p. 34).

**Andrey Fedorov. Billiard room in the attic: while designing the foundation, think about the roof!**

This article is based on professional experience of the author in the organization of the unsupported space in the attic for renovations and new construction, as well as on the fifteen years of personal experience. The main idea is that the author wanted to convey: if you want to have a large room on the loft you should think about this at the stage of the excavation (p. 39).

**EVENT****PESM-2019: Arctic focus**

A scientific-practical conference Industrial Electrical Engineering and Special Materials: Industrial Challenges and Technological Breakthroughs held recently in the headquarters of the Special Systems and Technologies Company. The editors publish some notes from speakers of this event (p. 44).

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