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ZAMONAVIY QURILISH MATERIALLARINING QURILISHDAGI O‘RNI.

Annotatsiya. Mamlakatimizda qurilish materiallarini ishlab chiqarishda hozirgi zamon talabiga ko‘ra energiya samaradorlik nuqtai nazaridan takomillashtirish, ularni turli maqsadlar uchun ishlatish mumkinligini asoslash, texnik xossalarini saqlagan holda, ishlab chiqarishda energiya va resurs tejamkorligi bo‘yicha ishlab chiqildi.

Kalit so‘zlar: qurilish materiallari, issiqlik izolyasiya, mineral paxta, issiqlik o‘tkazuvchan, polimer materiallari, bazalt tolasi

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РОЛЬ СОВРЕМЕННЫХ СТРОИТЕЛЬНЫХ МАТЕРИАЛОВ В СТРОИТЕЛЬСТВЕ.

Аннотация. В нашей стране производство строительных материалов развито в соответствии с требованиями современности в части энергоэффуктивности, обоснования возможности использования их для различных целей при сохранении их технических свойств, энерго и ресурс осбережения в производстве.

Ключевые слова: строительные материалы, теплоизоляция, минеральная вата, теплопроводящий, полимерные материалы, базальтовое волокно.

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THE ROLE OF MODERN BUILDING MATERIALS IN CONSTRUCTION

Abstract. In our country, the production of building materials has been developed in terms of energy efficiency improvement in accordance with modern requirements, justification of the possibility of using them for various purposes, saving of energy and resources in production while maintaining their technical properties

Keywords: Building materials, thermal insulation, mineral wool, heat conductive, polymer materials, basalt fiber

In order to develop the production of building materials in the republic, to ensure stable growth rates in the production and export of competitive products, as well as to further deepen the structural changes in the building materials industry aimed at modernization of enterprises, technical and technological renewal. Association of Self-Construction Materials" was established.

In our country, thermal insulation materials are used to insulate residential and cultural-household buildings, technological equipment, pipes, cooling and heating rooms and equipment from the effects of heat and cold. Building materials with a heat transfer coefficient not higher than 0.175 W/(m°C) are called heat insulation materials. Insulation from heat and cold is of great importance, especially in the dry hot climate of Central Asia, especially in the territory of Uzbekistan. Currently, the heat insulation materials produced in our region are classified according to the type of the main raw material, structure, shape, presence of binder, flammability, average density and heat transfer coefficient.

Mineral cotton is a vitreous fiber obtained on the basis of easily soluble rock metallurgy and fuel slag, its diameter is 5-15 mm, length is 2-40 mm. Mineral cotton mats are sheet or roll material, one or both textures It is sewn with fine threads and wrapped in bitumen coated paper and the mats are 3000-5000mm long, 500-1000mm wide and 50-100mm thick. - produced on the basis of formaldehyde or urea-formaldehyde and other polymer binders. According to traditional technology, hard plates are obtained in vacuum presses at a temperature of 150-180°C.

Mineral cotton bikr plates and fashion products are produced on the basis of polymer, bitumen and mineral binders, short-fiber asbestos powder is added to the bikr plates to increase their strength. The average density of plates is 100-400kg/m3, thermal conductivity is 0.051-0.135W, thickness is 40-100 mm. Mineral cotton semi-solid and soft plates are produced on the basis of polymer, bitumen and starch binders. Products based on polymer binders have high strength and beautiful appearance. The average density of plates is 35-250kg/m3, thermal conductivity is 0.041-0.07W/(m°C). They are used for heating non-attic covers and attic partitions, for thermal insulation of the walls of garages and industrial buildings, as well as the surface of technological equipment.

Basalt fiber is mainly made by melting basalt stone and turning it into fiber in Forish district of Jizzakh region. Basalt fiber cotton is used to make fire-resistant fabrics, tapes, and plates. They are resistant to aggressive environments. When basalt fiber cotton has an average density of 130 kg/m3, its thermal conductivity is 0.35 W/(m °C). This year, new types of products such as basalt rovings, polystyrene plates, floor coverings, pigments for lok-paint, light metal constructions were exported to countries such as Afghanistan, Azerbaijan, Turkey, Russia and Ukraine. At present, thermal insulation materials are prepared on the basis of thermoplastic and thermoreactive polymers with the inclusion of gas or foam-forming components, pigments, hardeners, plasticizers and modifiers.

Energy-efficient polymer materials can save energy consumption by up to 70%. These measures include heat-insulating coverings of facades, door and window openings, floors, balconies and pipelines with polymer-based materials. For thermal insulation of the outer wall of the building, 0.64 m3 of brick or 0.32 m3 of expanded clay concrete, 0.14 m3 of fibrolite, 0.1 m3 of mineral cotton sheets and 0.04 m3 of poroplasts are required per 1 m2.

Improvement of raw materials and types of products in the production of building materials in terms of energy efficiency in accordance with modern requirements, justifying the possibility of their use for various purposes, lightening their mass while maintaining their technical properties, and providing energy and

resource-saving technologies in production. to have skills and experience and to ensure that they are put into practice and applied.

Currently, the demand and supply of high-quality, cheap, new type of building materials for the provision of low-cost housing, social sector facilities, non-residential and residential buildings is increasing.

References

1. A.A.Tugalov, H.K.Kamilov, M.M.Vokhidov, A.A.Sultanov Modern construction materials, products and technologies. Textbook. Samarkand 2015.

2. Resolution of the President of the Republic of Uzbekistan dated May 23, 2019 No. RQ-4335 "On additional measures related to the rapid development of the construction materials industry".