

THE IMPORTANCE OF REINFORCED CONCRETE IN CONSTRUCTION

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ABSTRACT

The article discusses the properties of concrete used in construction. Serg. concrete tunnels and their lining are richly decorated.

Keywords: foamed, aerated, gas-foamed and porous concrete, energy efficiency.

To date, concrete and reinforced concrete products have become an integral part of the construction. It is known to Hamma that concrete and reinforced concrete are heavy in Jo, which causes an increase in the size and geometric dimensions of buildings and structures. Because of these basic factors, there is an increased demand for concrete, which has a high degree of light and thermal conductivity properties. In our country, the use of porous concretions obtained using autoclaves is becoming more common, including in this case, concrete solidifies in Steam autoclaves at a pressure of 0.8-1 MPa.

Ultra-light concretions with small to medium-sized airy pores up to 1-1.5 mm in size in large quantities are called Serpentine concretions. The pores of the hard concrete are obtained mainly by mechanical or chemical means. In the first case, fine sand and pre-prepared foam are added to the Hamir, which is made up of Binder and water, and mixed mechanically. As a result of hardening, a so-called porous foam concrete material is obtained. In the latter case, gas-forming additives are added to the composition of the binding material, and the gas-forming reaction in the hammerhead becomes abundant and porous as a result of departure. After hardening, this material is called gazobeton. Ceramic concretes differ depending on their place of Use into structural concretions with a density of 300-600 kg/m³ and a thermal insulator with a strength of 0.4-1.2 MPa and a density of 600-1200 kg/m³ and a strength of 2.5-15 MPA. One of the most widely used walltop insulating materials in the construction industry today, which is suitable for energy conservation requirements and for which the sleeve is widely used, is hard concrete. There are back types of hard concrete, which are categorized according to their characters as follows:

- 1) according to its functional function, there are three types of reinforced concrete:
- 2) thermal insulator-solid concretions with a volumetric weight of up to 500 kg/m³ (total=82-92%);

3) structural heat insulator (for barrier structures) - volumetric weight 500-900 kg / m³ (total=66-82%); structural (for reinforced concrete)-volumetric weight 900-1200 kg / m³ (total=47-66%). According to the porous dressing method, porous concrete is divided into foamed, aerated, gas-foamed and porous concrete. For the preparation of foams, the foam is first dressing by activating an aqueous solution of a foaming agent (synthetic or protein) of optimal concentration in a foam generator. Then the foam concrete is prepared by mixing a stable stationary foam prepared for the concrete mixture. Aerated concrete, on the other hand, is produced by adding porous forming substances (aluminum powder or aluminum paste) to the prepared concrete mixture. The porous concrete is obtained by adding a kremnezem component, a porous dressing agent and cement to a high-speed mixer. 3) according to the type of Binder, porous concrete is mainly found in cement, siliceous-lime (gas or foaming), slag (gas and foaming concrete), gypsum (gas and foaming concrete), as well as multicomponent cement-based porous concrete.

4) for the preparation of porpoises according to the type of silicon component, quartz sand is mainly used, the content of which is not less than 90% of the silicon content. But Barkhan (polymineralline) sand, which has a low content of kremnezem, can also be used. Ies volatile-ash, metallurgical slag and other glinazem product waste, which is typical of brown or stone burn, are also used as a kremnezem component.

5) according to the conditions of hardening, porpoises are divided into autoclaved and non-autoclaved types. Non-autoclaved porosity solidifies at atmospheric pressure and temperatures up to 100 °C. Autoclaved porosity, on the other hand, solidifies at high temperature and pressure (0.9 - 1.3 MPa pressure, 175-191 °C) of water vapor in autoclaves . The structure of hardwood or special lightweight concretions is characterized by the presence and uniform distribution of separate closed (or conditionally closed) pores along the volume of the material. Thin to medium-sized air cavities, 1-1.5 mm in diameter, are discernible for 85% of the total material total. Therefore, such materials have low thermal conductivity and high strength.

Studies show that the analysis shows that when using hard concrete, hard concrete materials reduce the labor costs for the construction of one-story building wall structures by 1.3-1.6 times, relieving the structural weight by up to 1.5 - 3 times compared to traditional multi-layer materials.

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