ANALYSIS OF METHODS FOR PROCESSING SERA RAW MATERIALS AND MAKING SEROBETON

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Abstract. *This scientific article analyzes the methods of disposal using the processing of Sera raw materials. The properties of Sera raw materials, its support as a binding material, the preparation of concrete and the comparison of serobeton with Portland-based concrete were carried out. Also in the area of application of serobeton, the possibilities for the production of serotemirbeton using serobeton were analyzed.*

Keywords: *Sera, hydrocarbon, serobeton, utilisation, industrial waste, waterproofness, cold storage, medium density, minerals*

АНАЛИЗ СПОСОБОВ ПЕРЕРАБОТКИ СЫРЬЯ SERA И ПОЛУЧЕНИЯ СЕРОБЕТОНА

Аннотация. *В данной научной статье анализируются методы утилизации с использованием переработки сырья Sera. Проведены свойства сырья Сера, его носитель в качестве вяжущего, приготовление бетона и сравнение серобетона с бетоном на основе портландцемента. Также в области применения серобетона проанализированы возможности производства серотемирбетона с использованием серобетона.*

Ключевые слова: *Сера, углеводород, серобетон, утилизация, промышленные отходы, водонепроницаемость, холодильное хранение, средняя плотность, минеральные вещества.*

INTRODUCTION

In the twentieth century, in connection with the increase in the volume of hydrocarbon production, the amount of extraction of Sera raw materials as a result of oil and gas processing began to increase. Large oil and gas processing companies began to look for ways to utilise Sera. Because in average gas and oil refining companies, more than 2tonnas of Sera appear as waste in one day. If this raw material is used for useful purposes, environmental pollution is prevented. Sera is not actually a toxic material. But its accumulation in large volumes can pose an environmental risk. As Sera is an intermediate material in the oil refining process, the amount of oil refining will continue to increase as it increases. According to staistic data, the appearance of Sera raw materials in the form of waste at oil and gas processing plants in Uzbekistan is several million tons per year.

RESEARCH MATERIALS AND METHODOLOGY

Serobeton is a composite material, the composition of which consists of inert fillers and Sera, which are used as fillers and binders. The types of fillers and fillers are diverse, they consist of Flint, gravel, sand, slag of the metallurgical industry and other materials, differ little from the composition of ordinary concrete. We will analyze the main properties of Sera so that the main difference between serobeton from Portland cement-based concrete is in its binder. Sera is the most abundant element in nature within metallmas, it receives unity with almost all chemical elements. Sera as well as its compounds are found in all aggregate states of substances(solid, liquid and gaseous). From the point of view of the physical characteritysera is a solid crisstal substance, two different modifications of which will be the priority: it can be rhombic (density 2.07 g/cm2) and monoclin (density 1.97 g/cm2) forms. Sera conducts heat and electricity poorly and is poorly soluble in water. For the production of more than 50% Sera Sera acid worldwide, more than 25% is used in the preparation of Sera salt. In addition to it,rubber is used in the technical industry, agriculture (in the preparation of mineral fertilizers), in the preparation of matches and dyes, among other industries. Of all this, it is more sosn to process Sera to be used in the preparation of serobeton and seroasfalt. Sera coming out of enterprises can often be in a technical Sera, granulated or liquid state. Sera in liquid state is relatively more common, but transportation of Sera in such a state is considered more inconvenient due to the increased loading unloading costs. But its composition is cleaner than in other aggregate cases. Technical Sera is formed as a result of hardening liquid Sera. Technical Sera reduces the mass in the hardening process, it can remain pulling pollution well wet. It is considered more convenient to store granulated Sera, but the granulating process also costs.

Towards the end of the twentieth century, research began on the properties of Sera and serobeton in the United States. As a result, a number of its positive properties were determined: water tightness, low water absorption, high cold resistance, high strength, and corrosion resistance are among them. Despite this, a number of its disadvantages were also identified: an excess of the degree of deformability under the influence of high temperatures (at a temperature of 1200S, Sera begins to liquefy), low fire resistance, and the fact that when making a large volume of serobeton, cracks can form.

RESULTS OF THE STUDY

The results of an experimental study carried out by the Department of building materials and objects of the Namangan Institute of Engineering Construction showed that as a result of the modification of Sera and the use of various additives, structures made of serobeton were found to be completely harmless to the environment. Therefore, given the waterproofing, corrosion resistance of serobeton, hardening even at low temperatures, the technology is non-waste, and has a high strength, it can be recommended to use serobeton in the preparation of reinforced concrete piles, Foundation slabs, railway sleepers, road and sidewalk slabs, Wells, underground pipes, as well as in hydraulic structures.

It is worth noting that it is still time to say that as a result of scientific research, all types of structures were fully covered. Taking into account the harsh continental climate of Uzbekistan, the development of guides and technical conditions for the production of serobeton in each season, the selection of methods for its modification, the development of technical regulations for reinforced concrete structures of each type, the establishment of the production of serobeton and serotemirbeton in production facilities is one of the future important tasks.

CONCLUSION

The strength of serobeton in particular is almost twice as high as that of Portland cement-based concrete, which makes it possible to reduce the consumption of fittings in the preparation of reinforced concrete structures. As a result, the estimated cost of the building or structures under construction is reduced.

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