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Problem Solution of Using Wastes in Technology of Building Materials

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Abstract: *At present, the problem of utilization of industrial and domestic waste is on the agenda as a critical issue in all countries of the world. According to the data studied by scientists, such wastes in cities account for an average of 1 ton per capita, of which at least 50-80 kg is solid household waste. In addition, the decay of different grains varies, for example, it takes 2-10 years for paper grains to decompose. Similarly, it takes at least 100 years for coffee, canned and other cans, up to 500 years for polyethylene and plastic cans, and at least 1,000 years for glassware to completely decompose.*

Keywords: *waste, concrete, raw materials, utilization, specific.*

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Introduction.

In Samarkand, the problem of disposal of such waste is acute, especially polyethylene and plastic containers, which pollute the environment. If we take into account the fact that the city has a population of more than 520 thousand people, only domestic waste is at least 30 thousand tons, and this amount of solid waste is dumped in open dumps, which occupy large areas of land, which can be used in the production of building materials.

The use of waste of various types as a raw material for the production of building materials reduces the cost of the product by at least 15-30%.

Given that the group of municipal waste is used tires, various pieces of fabric, waste paper, construction waste, polymeric materials, most of them can be used as raw materials for construction materials.

As an example, it can become an invaluable material for paving, as a filler for unusable cars on special equipment, such material is durable and has a very low coefficient of surface roughness. Road pavements are available in different sizes and its application technology is no different from the usual.

Another way is to add up to 5% lightweight fillers to get quality lightweight fillers of different sizes, weights and pores. The use of such a dot can be adopted without any modification to existing technology.

Materials and methods.

Similarly, there are opportunities to obtain quality building materials without incurring large costs for the use of the remaining features. By crushing steel pieces and boxes into special fibers by special equipment, they allow to reduce the properties of building structures made by micro-reinforcement of concrete, in particular, brittleness, crushing strength and consumption of reinforcement.

The use of such wastes should be based on technical and economic indicators, which include the following. From them:

1. Homogeneity of seeds;

2. Accessibility;

3. The level of reduction of fuel and energy consumption;

4. Saving natural raw materials and supplies;

5. Quality and competitiveness of the product, the demand for it;

6. Levels of change in existing technologies (high or low).

The economic efficiency of the production of construction materials from waste per 1 ton of solid waste is determined as follows:

$Э_{specific}=(n_1/a)\ (C_1+n_2C_2-C_3)+E_n(K_1+n_2K_2-K_3)$

Here S1 and S2 are the body prices of building materials obtained from conventional and waste raw materials;

S2 is the annual cost of transporting the landfill and waste;

n1 - the coefficient of accounting for waste as part of the total cost of the material or structure to be obtained;

n2 - coefficient of accounting for partial or complete waste disposal;

K1 and K3 - appropriate capital investments for the production of construction materials;

K2 - capital inflows for landfill facilities;

En - normative coverage of capital investments;

a is the specific cost of using waste for an annual product.

The economic efficiency of using such wastes in the enterprise is equal to:

$E = (Ts-S) / K$

Here: the price of the product obtained during the year on the basis of Ts-waste;

S is the cost of the waste product;

K- Capital investments in the implementation of organizational measures for waste recycling.

Conclusion:

The use of waste of various types as a raw material for the production of building materials reduces the cost of the product by at least 15-30%.

Given that the group of municipal waste is used tires, various pieces of fabric, waste paper, construction waste, polymeric materials, most of them can be used as raw materials for construction materials.

References:

1. Kuldasheva, A., Saidmuratov, B., &Kuldashev, H. (2020). The Use of Wollastonite Fiber to Enhance the Mechanical Properties of Cement Compositions. International Journal of Progressive Sciences and Technologies, 22(2), 37-45..
2. Kuldasheva A., KuldashevKh.; Kuldasheva Z. Wollastonite effective micro-reinforcing as a filler and application in the production of dry mixtures. Weimar Gypsum Conference, Weimar, 21st International Conference on Building Materials, 22. - 24. September 2021 in Weimar. www.ibausil.de.
3. Kuldashev, K., Ibragimov, K., &Mannatov, B. (2021). PROTECTIONOF SEISMIC-STABILITYOF LARGE-PANEL BUILDINGS. European Journal of Life Safety and Stability (2660-9630), 5, 1-5.
4. Aziza, K., &Kh, K. (2021). DURABILITY CHARACTERISTICS OF CONCRETE ADMIXED WITH WOLLASTONITE MINERAL. European Journal of Life Safety and Stability (2660-9630), 5, 9-13. http://ejlss.indexedresearch.org/index.php/ejlss/index.
5. Кулдашева А.Х. Экспериментальные исследования прочностных свойств бетонов на основе волластонитового сырья // Вестник МГСУ. 2011. №7. URL: https://cyberleninka.ru/article/n/eksperimentalnye-issledovaniya-prochnostnyh-svoystv-betonov-na-osnove-vollastonitovogo-syrya-1 (дата обращения: 11.01.2022).
6. Kh, K. (2021). Research of light-weight concrete properties on base wollastonite addition. Middle European Scientific Bulletin, 8.