

APPLICATION OF MODIFICATION OF COATED SOLUTIONS WITH POLYMER ADDITIVES

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Abstract: The article envisages their use to improve the seismic resistance of buildings and structures. The work is carried out on choosing the best construction for increasing the earthquake resistance of silicate brick.

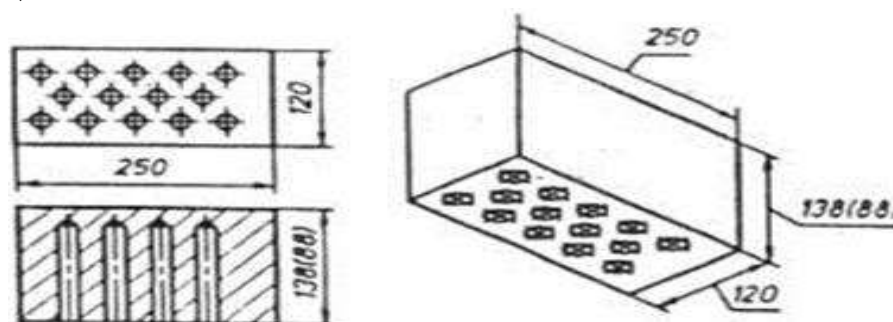
Keywords: The article, building, structures, seismic, being, carried out.

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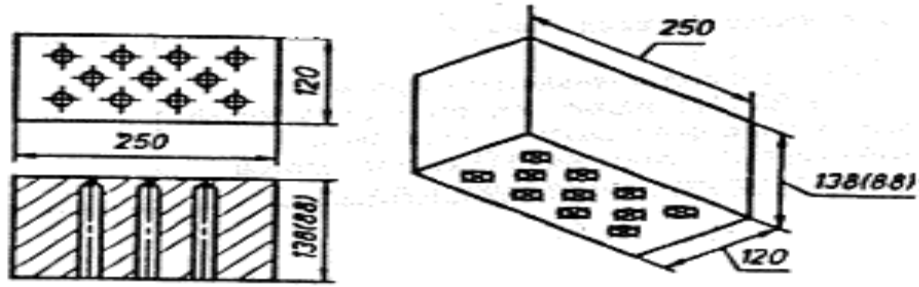
The studies on the deformation and load carrying capacity of the sensor under the conditions of central compression confirmed the feasibility of using K-9 additive in the amount of 0.002% in the stone solution.

The use of solutions developed together with low water separation increases the monolithic nature of the wall, prevents cracking and cracking of the brick and mortar masonry, improves the physical and mechanical properties of the brick, and improves the coefficient of brick strength utilization in masonry. Due to the low consumption of polymer, this wallpaper is water resistant in traditional compositions and with polymer additives. In this regard, in order to increase the level of reliability of buildings and structures under the conditions of dynamic effects of various types it is recommended to use developed cement polymer compositions.

It is especially effective to use them to improve the seismic resistance of buildings and structures. Choosing the best construction for increasing the earthquake resistance of silicate brick. 14 hollow bricks (hole diameter 30 – 32 mm, void 28 – 31 %)

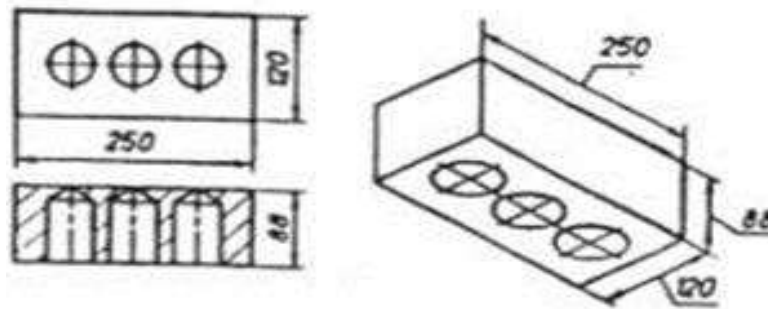


Picture-1. 14 gap bricks.



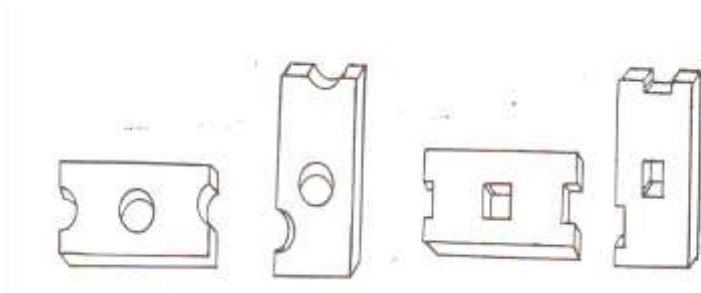
Picture-2. 14 gap bricks.

3 gap brick with brick (hole diameter 52 mm, gap 15%)



Picture-3. 3 gap bricks.

A silicate brick in a new configuration is offered. There is a 45x45mm hole in the center of the brick and a 22.5x22.5mm sleeve is placed along the edges. The second type of brick is constructed with a 46 mm diameter round hole in the center and a half-inch wall with a 22.5 mm radius along the edges, which forms a target along the height of the wall. This target is designed with or without fittings. This significantly increases the seismic stability of stone walls. From a technological point of view, the production of square or rectangular spaces is associated with a number of difficulties.



Picture-4. New seismic resistant silicate brick.

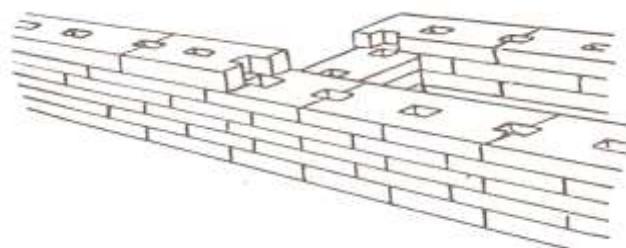


Figure-5. Seismic resistant brick wall covering

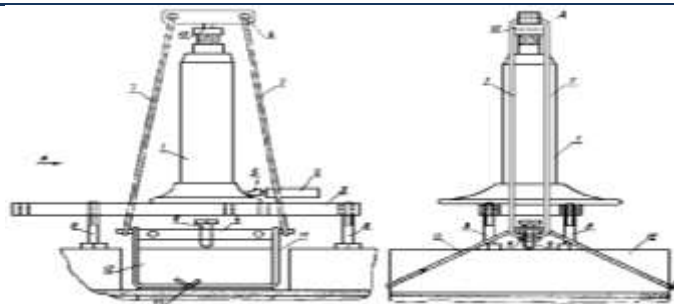


Figure-6. Device for testing stone (brick) walls for bite.

1 - hydraulic outlet; 2 - manometer; 3 - frame; 4 - cross corner; 5 - adapter; 6 - sleeper; 7 - traction; 8 - racks; 9 - adjusting bolt; 10 - hinge; 11 - cable holder; 12 - test brick; 13 - cable assembly.

GENERAL CONCLUSIONS

Silicate bricks, due to its low adhesion to wall processing, are practically not used in the construction of buildings in earthquake-prone areas;

Seismic strength of making bricks from silicate bricks can be done in several ways, including the use of solutions with greater viscosity properties compared to traditional ones. On this basis, to ensure the industrialization of construction in seismic regions, to expand silicate bricks in seismic regions.

development of the composition of production of special silicate bricks that harden in an autoclave with high physico-mechanical properties based on local raw materials and elucidate its physico-chemical basis;

development of perfect technological regulations to increase construction-technical properties of silicate bricks;

increasing the volume of adhesion (inclusion of waste) increases the activity of the solution in the silicate brick and thereby increases the adhesive strength;

to create a silicate brick with chemical activity with a solution that provides. Additives: used as polymer, ash, barkhan sand;

improving the brick itself, giving the silicate brick various geometric shapes, configurations. Especially in a brick wall with holes

the post is above the brick made of solid brick, and should penetrate the holes of the stone, and break and crack through these holes, which will give additional strength to the simple normal practice;

rules necessary for cutting soil in terms of seismic resistance of stone;

the use of polymer additives can increase the activity of the brick (mortar) solution. This usually increases the strength and durability of the brick and wall;

Finally, silicate brick, which has chemical activity with the solution, is able to ensure the strength and monolithicity of the intermediate layer of the brick at the interface between the brick and the air sealant. Fergana mine limestone can be used as a binder in the production of silicate products;

The sand content of the Dangara mine is 70-82% and is suitable for the production of silicate products;

The developed method for calculating the composition of raw mixtures allows obtaining a silicate brick with predetermined, stable technological properties;

A convenient configuration significantly increases the seismic strength of the recommended silicate brick wall;

The use of silicate brick in the construction of Fergana region reduces the lack of wall materials.

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