

Wall Building Materials Manufacturer

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ABSTRACT

Today, clays used for the production of construction materials and very common kaolin, clays themselves and with additives are necessary raw materials for the production of ceramics. When clay is mixed with water, it turns into a plastic clay that can be molded into any shape. Ceramics is a product made by baking a special soil (clay, kaolin) or a mixture of various minerals with soil, and then heating it strongly. All ceramic materials are water by mass depending on their porosity elasticity is more than 5% (usually within 10 .. 20%) to porous and dense materials with water absorption less than 5% is divided. In the construction of ceramics (brick, tile, plate, spoon, pipe, sanitary construction item, etc.), in household (ceramic and porcelain containers) and equipment (electrical insulator, etc.) are widely used.

Wall ceramic products make up 50% of wall products used in construction. According to the density, wall ceramic products (brick, ceramic stone) are divided into 3 parts: - effective - density not more than 1400 - 1450 kg/m³ , able to retain heat well; - conditionally effective - 1450 - 1600 kg/m³ ; - simple - greater than 1600 kg/m³.

of ordinary brick are 250x120x65 mm, the edges should be straight, clear, and the surface should be smooth and even. The sides may differ by up to 3 mm.

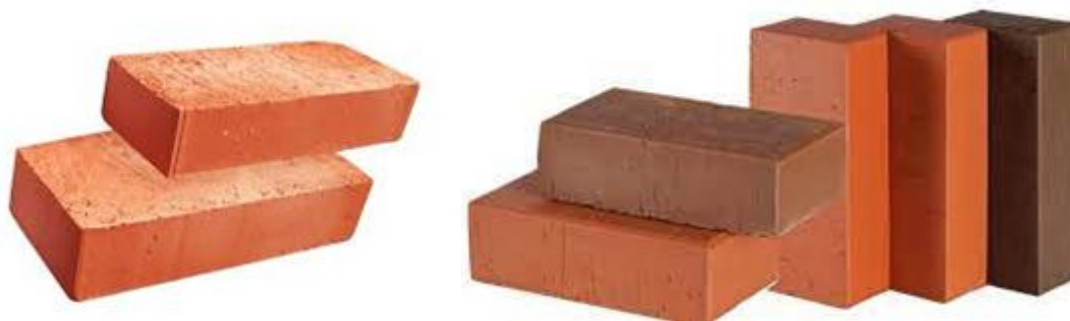


Figure 1. The dimensions of a normal brick are 250x120x65 mm.

Ceramic materials used in construction are divided into 2 groups according to their density: porous and dense. Porous ceramic materials include products with a water absorption of more than 5%. Dense ceramic products include products with water absorption less than 5%. Such products include unglazed, but melt-molded (clinker used in road construction and as paving slabs, floor and facing ceramic tiles), glazed (facing bricks used for facing the facade of the building, facing ceramic tiles, sewer pipes). Wall ceramics include ordinary ceramic bricks,

various effective ceramic materials (porous, porous and porous-porous bricks, lightweight, porous ceramic stones, blocks and tiles) and large-sized blocks and bricks, ceramic includes stone-based panels. Brick and stone should be baked normally. If it is not fired enough (almond colored) it will have low strength, it will not be resistant to water and frost, and overbaked brick and stone will be very dense, strong, but with high thermal conductivity. External defects of ceramic bricks and stones are explained as follows: changes in dimensions, uneven edges and ribs, flying, cracks, etc. Defective bricks should not exceed 5% of the total number of bricks.

The dimensions of the modular bricks are 250x120x88 mm and they are round or square hollow. Bricks are divided into the following brands according to the compressive and bending strength limits of the wall building material brick: 75; 100; 125; 150; 175; 200 and 300. The frost resistance of bricks and stones is 15, 25, 35 and 50 cycles. Water absorption must not be less than 8% for full bricks of 150 brand, and not less than 6% for full bricks of high brand.

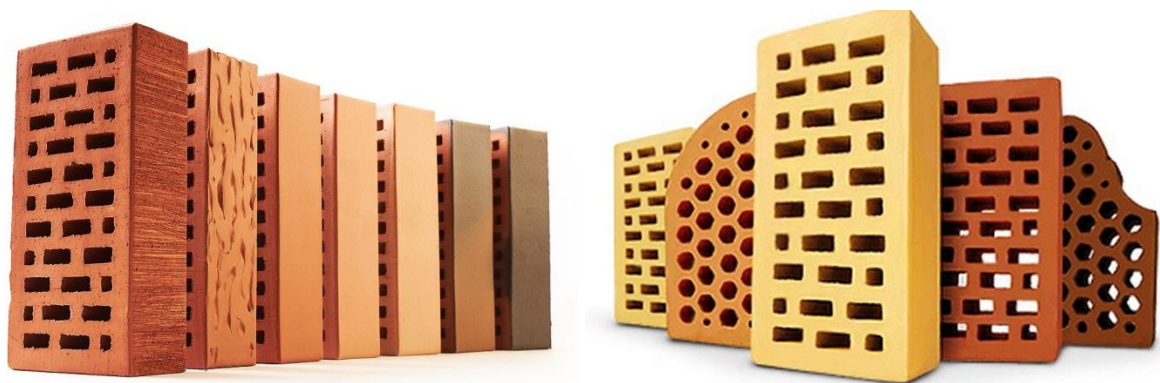


Figure 2. The dimensions of modular bricks are 250x120x88 mm.

The holes in bricks and stones can be parallel or perpendicular to the surface, and the holes can be open on both sides or on one side. The diameter of open cylindrical holes should be up to 16 mm, and the width of slotted holes should be up to 12 mm. The use of efficient bricks and stones reduces the thickness of the outer wall and reduces the material consumption by 40%, reduces the force on the building floor and transport costs.

The passport of the batch of bricks sent from the factory to the consumer shows the type of brick, average density, frost resistance and the State Standard (DSt) that determines these parameters.

In short, simple and modular fully plastic pressed bricks are used in the construction of internal and external walls, plinths and foundations, and floors. It is better not to use solid bricks and hollow bricks obtained by semi-dry method in the part of the plinth and foundations that are constantly in contact with water.

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