

Title (en)

Method for cutting stone or stone-like blocks into large and thin slabs, and their reinforcement.

Title (de)

Verfahren zum Schneiden von Stein oder stein-ähnlichen Blöcken in grossen und dünnen Platten und ihre Verstärkung.

Title (fr)

Procédé pour couper des blocs en pierre ou en matériaux semblables à la pierre en plaques grandes et minces et leur renforcement.

Publication

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Application

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Priority

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Abstract (en)

This invention aims to the production of new products from decorative rocks, that will be free from two serious disadvantages of the natural products. the great specific weight and the low flexural strength, also much improving the economical result of the production, because the rendering of the marble blocks-granite blocks is over the double. The new products will be large slabs or also thin (5 DIVIDED 7 mm) tiles (module marble and module granite), that will be covered and reinforced on one face with substances giving them increased strengths, a decreased water absorption and a safe anchorage to the building elements. <FOO ID=00.1>* marbles are crystalline or granular compact rocks, consisting of minerals with a hardness of 3-4 of the Mosh scale (caloite, dolomite, serpentine), that can be cut, grid and polished, used as decorative and building materials.</FOO> <FOO ID=00.2>** granites are phanerocrystalline compact rocks, consisting of minerals with hardness 6-7 of the Mosh scale (quartz, feldspar, feldspathoidis) that can be cut, grid and polished, used as decorative and building materials.</FOO> More particularly, this invention solves mainly the problems of cutting of the decorative rocks (marbles<FOR ID=00.1>*</FOR> and granites<FOR ID=00.2>**</FOR>) into very thin slabs (5 DIVIDED 7 mm). The method of this invention has nothing common which that used to the production of thin tiles, measuring 15 x 30 x 0.7 cm as it refers to the possibility of production of large and thin slabs (e.g. 155 x 320 x 0.5 cm). Furthermore, this invention solves the problem of the reinforcement of slabs with resin glass-fibers or also resin glass-clothes, which, as they are hydrophobe materials, the slabs should be completely free from dampness. The additional increase of the inflexibility of the slabs was achieved by the use of enlarging materials (e.g. polyurethane). The self-anchorage of the slabs is realized by depositing of gravel to the still fresh surface of the resin glass-cloth. The reinforced slabs produced within the frame of this invention are much more lighter (15-20 kg/m<2>), in comparison with the natural slabs 2 cm thick (55 kg/m<2>) and they can be much longer without being broken. Finally it should be noted that each square meter of reinforced slabs is charged totally with the sum of US DOLLAR 6.00 (prices of 1986), which sum is covered by the over than the double rendering (from 1 m<3> of marble-block or granite-block the theoretical production is 40 m<2> of slabs, 2 cm thick or more than 83.3 m<2> of reinforced slabs 0.5 DIVIDED 0.7 cm thick).

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Cited by

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