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Influence of the cement-wood attitude on durability cement-wood composites

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Abstract

For carrying out of experiment the shaving from wood of the pine, by the natural humidity, received from machine tool DS-6 and used in external layers of wood-shaving plates was used. As knitting it is taken cement marks 400 in accordance with GOST 10178-85. For definition of physicomechanical parameters were formed балочки, the size 4×4×16 see. Definition of durability on a bend was made in accordance with GOST 310.4-81 after 14 day solid a wood-cement material in room conditions, humidity, density and water absorption were definedalso. In quality mineral applied traditional structure, in %-x to weight of cement.

For studying properties of the Wood-cement mix dependent only from a parity of components, the simplex - trellised plan of experiment is used.

At creation cement-wood composite materials it is necessary to be guided by principles: correctly certain structure of a composite has optimum structure; with increase of quantityof knitting substance in a composite of optimum structure the phase attitude (environment / phase) decreases; the charge knitting is reduced at reception of dense mixes of a filler; optimum structure and structure of a composite essentially depend on technological parameters.

As to the considered structure of a composite, their optimum parity makes from 2:1:1 till 3:1:1,5 at which the greatest durability of a material turns out.

Key words: cement, a shaving, properties, the cement-wood attitude, a cement-wood composite

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