HIGH-STRENGTH AND CHEMICALLY STEADFAST POLYMER-CONCRETES

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Elaborated highly effective carbomide connecting and polymer-concretes, on their basis with the use of the new solidifying systems of the heterogen complexes, polyelectrolytes, metales-complex, etc. In this case the viability of polymeric bonding agent composes 1-12 hour, which principally improves the technology of the manufacture of polymer-concrete articles. By chemical modification by the distillation residues of furfuril alcohol, by furanoformaldegid oligomer, by gossypol resin, by the wastes of caprolactam, by gelpolymer is increased water and chemical stability of carbomide composites under the conditions of aggression.

Studies show that the appearance of internal stresses, increase in strength, deformation and chemical stability of polymeric compositions they depend on the nature of interaction of system polymer- filler. For increasing the adhesive strength of polymer with the quartz filler, the latter is activated with the application of water-soluble and defil PAV and preparations, in this case the polymer content of carbomide bonding agent is reduced to 20-40.

As activating contribution is selected halide connections (calcium chloride, the fluoride of ammonium and barium chloride). By particle of quartz with the halide cover, introduced into the carbomide compositions, create the regulated structure in the materials with the high strength properties and the smaller internal stresses.

This combination leads to an improvement in the physicomechanical properties, first of all, steadfast split binding. Polymer-concretes on their basis can find wide application in the special building, where is required high chemical stability, longevity and strength.

Literature