

Influence of retarders on the base of 1-hidroksyethylidene-1,1-diphosphonium acids on gypsum plasters properties

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Abstract

Using the method of graphical visualization in Statistica program the influence of gypsum setting from additives of 1-hydroxyethylidene-1,1-diphosphonic acid salts was investigated. The synergy of salt components, for example of triethanolamine salt retarding action, on gypsum was examined. Stronger effect was found for gypsum half-hydrated forms, including gypsum-limy mixes. Using electron-radiographic microphoto, the mechanism based on adsorption of 1-hydroxyethylidene-1,1-diphosphonic acid complexes on crystallizing surface was proposed.