

EFFECT OF ORGANIC ACIDS ON THE PROCESS OF GYPSUM CURING

Grishkovets V. I.¹, Kapora L. L.¹, Yakovishin L. A.²

¹[V.I. Vernadsky Crimean Federal University, Simferopol, Russia](#)

²[Sevastopol State University, Sevastopol, Russia](#)

[E-mail: vladgri@ukr.net](mailto:vladgri@ukr.net)

The aim of the work was to study the curing process of the gypsum in the presence of various modifiers. The paper was held testing wide range of organic acids (monocarboxylic, dicarboxylic, hydroxy acids, unsaturated carboxylic acids, aromatic carboxylic acids, aromatic oxoacids) for their ability to slow down the curing plaster, studied the influence of the pH of the medium on the curing process in the presence of organic acids and strength characteristics of the plaster by using different additives.

Activity against slow curing process of gypsum from a wide number of acids tested showed only racemic malic and citric acid. Effectively inhibit the action of citric acid was two times higher than for malic acid.

It is shown that trisubstituted salt of citric acid (~ pH 7) very much active than citric acid. However, further increasing the pH to 12 led to a decrease in activity and a decrease in strength characteristics of plaster casts.

Keywords: binders, gypsum, organic acids, citric acid, malic acid.

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