ABSTRACT

The theme of this diploma work was the modification of mortars by redispersible polymer powder.

Lots of publications available on the subject deal with polymer modified cement mortar. In this work was studied the modification by a redispersible polymer powder (Rhoximat PAV 22) on three types of binder: hydrated lime, hydraulic line and white cement.

The study included an evaluation of the following properties of traditional mortars and their modifications by polymer's addition: setting-time, water/binder ratio, absorption capacity, bending and compressive strengths and resistances to salts crystallisation and to freeze/thaw cycling.

It was observed that the influence of polymer's addition is greater on lime-based mortar than on hydraulic lime- or cement-based mortars. One of the reasons may be the fact that lime mortars have poor characteristics compared to hydraulic binder based-mortars.

It seems that Rhoximat PAV 22 is not a good polymer to use in the repair if the cause of the damage is due to the presence of salts, because the damages were bigger on modified lime and hydraulic lime mortars. It is suitable if the curator wants to improve the compressive or the bending strength of the mortars.

Název diplomové práce:	Modification of mortars by polymer redispersible powder
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