

ABSTRACT

In the present study four polymers, i.e., Betz Dearborn CP 1030, CP 1035, CP 1156 and CP 1157 were used to check their sludge dewaterability by performing jar tests. The study indicates maximum dewater efficiency of polymer 1156 at optimum dose rates 400ppm and 350 ppm with amount of decanted water 290 ml and 280 ml respectively in sample 1 (from Sara & Amar Textile Mills) and sample 2 (Irfan Textile Mills). The compactness of dewatered sludge along with the reduction in its volume in both samples at optimum doses is about 17%.

On the basis of cost effectiveness, availability, convenience to use and quality of treated water, polymer Betz Dearborn CP 1156 is found best for sludge dewatering. Polymer dosage 13 lb/ton for first sample and 12.5 lb/ton for second sample has been found enough to dewater sludge from industrial effluents and to procedure high quality treated water. Hence, the present research work has successfully selected the best polymer out of the available choices for its industrial application in solving the unavoidable problem of dewatering the huge bulks of industrial sludge. Ultimately, to save the future of coming generation through protecting the environment against the adverse effects of industrial effluents.