Defining the potential for effective processing and recycling of industrial sludge.

Petr Hlavinek, Jiri Kučerik, Tomas Chorazy, Jakub Racek

Brno University of Technology, Faculty of Civil Engineering, AdMaS, Purkyňova 651/139, 612 00 Brno, Czech Republic

The subject of the research activities was the development of a conceptual design for the effective use of industrial sludge and sludge from wastewater treatment plants (WWTP). The total of 8 samples of various selected types of waste (of various origins and originators) was tested and evaluated.

As part of the I. stage of the solution, selected analyses of the waste in question were carried out, and the overview of the analyses was consulted. The subject analyses were carried out in the accredited ALS laboratory.

As part of the II. stage of the solution, the potential for use for all 8 types of waste is then defined. Algorithms for effective processing and recycling in the form of a general algorithm was developed, applicable to any type of waste/sludge and then for the 8 types of waste in question. Part of the II. stage also includes the performance of other partial tests such as TG analysis (thermogravimetric test for verifying the thermal stability of waste) and pyrolytic processing for selected waste. Some additional sample analyses were also performed.