THE EFFECT OF CYCLIC CHANGES OF WATER CONTENT ON THE GRAIN SIZE DISTRIBUTION OF MINING WASTES

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Summary

The mining industry produces large amounts of waste materials. Part of the mining wastes is stored next to mines in waste dumps. The rest is utilized in civil engineering (highway engineering, railway embankments, river embankments, sink fill, dykes, dams) and harbour engineering (quay engineering, area recovery). High cost of storage and the necessity to occupy new areas incline the coal mines to utilize as much of these materials as possible. Furthermore, a lack of the local soils make the mining wastes a very promising material in civil and harbour engineering.

The paper covers the petrographical, mineralogical and chemical composition of mining wastes from the Bogdanka Mine. It presents the grain size distribution of fresh mining waste taken from mine waste dump and that of fresh mining waste subjected to cyclic and continuous soaking.

The article presents also some geotechnical parameters like: water content, optimal moisture content and maximum dry density of solid particles.

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