There are 40 coal mines in Poland now. One of them (coal mine "Bogdanka") is situated in Lublin Coal Basin, other are localised in Silesia and Małopolska regions. Coal mining is a source of large amounts of wastes. Mean annual production of wastes in only Lublin Coal Basin exceeds 2 million Mg, 65% of which is disposed on a heap. The rest is used to restore opencast excavations, to construct and repair local roads and to produce building materials. It seems that large amount of these wastes could be used to construct or modernize flood embankments and dykes. Using mine wastes as building materials requires the knowledge of their geotechnical parameters. A characteristic feature of mine wastes is their gradual weathering which affects geotechnical parameters largely determined by their mineral and petrographic composition.

This paper describes analyses of geotechnical parameters of mine wastes from Lublin Coal Basin (heap near coal mine "Bogdanka") of various storage times and of samples collected after 10 years of exploitation of a dyke between ponds made of these wastes at the break of 1993 and 1994. Detailed analyses involved: grain size distribution, natural and optimum moisture content, maximum dry density, shear strength and coefficient of permeability. Obtained results were compared with literature data pertaining to mine wastes from Upper Silesian Coal Basin and from other European coal basins. Performed studies showed that coal mining wastes produced in Lublin Coal Basin significantly differed in the grain size distribution from wastes originating from Upper Silesian Coal Basin and that weathering proceeded in a different way in wastes produced in both sites.