

# Characterization of perlites from Jastrabá and Lehôtka pod Brehmi deposits

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Perlite is an important industrial mineral with unique properties. It is an acid volcanic glass (rhyolitic or rhyodacitic) with a water content between 1 to 5%. The largest industrial use is in the form of expanded perlite. This produced by rapidly heated, grinded natural perlite at 600–900°C (Barker & Santini 2006). Perlite occurrences represent economic accumulation in Slovakia. Perlite is mined at the Lehôtka pod Brehmi deposit for a long time and now is starting to open Jastrabá deposit. The aim of this paper is characterization and correlation of samples of both deposits and samples from locality Szabova skala due to their different genesis. The perlite from Lehôtka pod Brehmi deposit has been characterized by X-ray powder diffraction, IR spectroscopy and thermal analysis in the current research (Uhlík et al. 2014). Any significant differences were not identified in the content of volcanic glass, crystalline phases, or content of water. Only one differences have been observed in the macroscopically different perlite glasses (color, texture) – porosity. The macroscopically (color, texture) of different perlite glasses differences were once in porosity. The purpose of this article is to characterize the perlite sample by optical microscopy, X-ray powder diffraction and microprobe analysis. The characterization of perlitic glass is important not only for the mining company because of heterogeneity of Lehôtka pod Brehmi deposit, but also from a scientific point of view and about 30-years gap of perlite studies in the Central

Slovakian Volcanic Field (Capková 1976, Kraus et al. 1980, 1985, Zuberec et al. 1980, 1983).

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