

# Microtexture diagnostics of asphalt pavement surfaces

**Zuzana Florková<sup>1</sup> and Ľubomír Pepucha<sup>1</sup>**

<sup>1</sup>Research centre University of Zilina, Univerzitna 8215/1, Zilina SK-010 26, Slovak Republic

E-mail: zuzana.florkova@rc.uniza.sk

**Abstract.** The microtexture of asphalt pavement surface is an essential parameter from the traffic safety point of view and it closely relates to a geometrical, petrological and physical properties of aggregate particle used in asphalt pavement. Microtexture has a significant influence for assurance basic friction values between tire and pavement in relation to a skid resistance properties. Therefore, the microtexture detecting methods are necessary. The British pendulum tester measurements have been carried out on selected sections of roads with different asphalt surfaces. Individual grains of aggregates were taken from the surface of each section from the sliding path and also from the core sample after the extraction. The laboratory profilometry measurements have been practiced on these aggregate samples and subsequently the surface microtexture was investigated based on commonly used texture characteristics and the filtration approach was applied in calculation process. The results have shown the degradation of microtexture values occurs due to polishing of aggregate under loading from traffic in relation to the type of used aggregate. Some correlation between BPN values and texture characteristics was found.