

THE SPECIFIC SURFACE OF MINERAL FILLERS AND THEIR FUNCTIONAL PROPERTIES

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ABSTRACT

The main purpose of the paper was an assessment of the influence of the specific surface on the basic functional properties of mineral fillers used for Hot-Mix Asphalt (HMA).

In this paper, the functional properties are considered as a group of features connected with the useful properties of mineral fillers in mastics, and consequently relating to the stiffening influence of fillers in mastics, water-sensitivity and bitumen absorption of fillers like for example; Air voids of dry compacted fillers by means of a Rigden apparatus, Volumetric Mass Concentration, Increase in the Softening Point of mastics using the Ring & Ball method. The Specific Surface test was conducted by air permeability test using the Blaine's method.

The results of investigations showed the need to consider the influence of the following factors; the thickness of film of „fixed asphalt”, the bulk volume of compacted fines in filler-asphalt mastics (solid phase).

KEY WORDS: Mineral dust, filler, specific surface, mastic, functional property, bulk volume of compacted filler, fixed asphalt.