

TESTING OF CREEP OF BASE AND POLYMER MODIFIED BINDERS AT LABORATORY CONDITION

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ABSTRACT

Research work has been executed by making use specially prepared test stand, which contains a standard ductilometer. Conditions of the tests were as follows: temperature: $T = 15^{\circ}\text{C}$, total specimen length: $l = 150 \text{ mm}$, maximal specimen elongation: $l_1 = 10 \text{ mm}$, stress levels: $\sigma = 2,5 \div 25 \text{ kPa}$.

Road bitumen D70 and D200 (base bitumen) and 9 binders modified in laboratory with elastomer SBS, SIS and SBR have been the objects of the tests.

The purpose of the research work was searching for influence of type and content of selected polymers addition on changes of rheological properties of PmB during creep under static loading.

Introducing of coefficient k as a measure of interrelation between viscous and elastic components in visco-elastic medium made possible to assess the influence of modification of bitumen with polymer addition on course of creep under static loading.

KEY WORDS: bitumen, polymer, creep, rheology, strain