

3^ο ΔΙΕΘΝΕΣ ΣΥΝΕΔΡΙΟ
ΑΣΦΑΛΤΙΚΑ ΜΙΓΜΑΤΑ ΚΑΙ ΟΔΟΣΤΡΩΜΑΤΑ
Θεσσαλονίκη, 21-22 Νοεμβρίου 2002

COLD RECYCLING OF ASPHALT MIXES WITH EMULSION OR/AND CEMENT-MECHANICAL PROPERTIES

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ABSTRACT

In this work the results of a study of the mechanical properties of a milled bituminous mix recycled with bituminous emulsion and cement are presented. The stiffness modulus under diametrical compression of Marshall specimens prepared with various percentages of emulsion and cement was determined in two temperatures (5°C and 20°C). The influence of water saturation on the stiffness modulus was also studied. Cylindrical and prismatic specimens (2.5% emulsion and 2.5% cement) compacted with the vibrating hammer were tested in compression under ramp loading with two loading rates (0.5 and 4.2 MPa/s) and with sinusoidal loading with a frequency of 0.5 Hz. Finally the indirect tensile strength was determined.

KEYWORDS: *Cold Recycling, Emulsion, Cement, Stiffness/Elasticity Modulus*