

Tensile Strength of Asphalt Concrete Due to Moisture Conditioning

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Abstract : This study investigates the effect of moisture conditioning on the Indirect Tensile Strength (ITS) of asphalt concrete. As a first step, cylindrical samples of 100 mm diameter and 50 mm thick were prepared using a Superpave gyratory compactor. Next, the samples were conditioned using Moisture Induced Susceptibility Test (MIST) device at different numbers of moisture conditioning cycles. In the MIST device, samples are subjected water pressure through the sample pores cyclically. The MIST conditioned samples were tested for ITS. Results show that the ITS does not change significantly with MIST conditioning at the specific pressure and cycles adopted in this study.

Keywords : asphalt concrete, tensile strength, moisture, laboratory test

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