

عنوان مقاله:

Analysis and Comparison of Moisture Sensitivity and Mechanical Strength of Asphalt Mixtures Containing Additives and Carbon Reinforcement

محل انتشار:

مجله مهندسی عمران و مصالح کاربردی، دوره 5، شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 8

نویسندگان:

--- Civil Engineering Department, Iran University of Science and Technology, Tehran, Iran ---

--- Bitumen and Asphalt Department, Road, housing and Urban Development Research Center, Tehran, Iran ---

خلاصه مقاله:

Structural weakness in asphalt stems from the weakness of two components of asphalt, namely bitumen and stone materials. For many decades, various additives have been used to modify bitumen as well as various fibers to create a proper bond between bitumen and aggregates. The use of additives that have structural similarities or components with bitumen has also received more attention in recent years by various researchers. Carbon is one of the materials that can be described as very similar to bitumen. This material has recently been used in both pure and fiber forms for research on concrete. In this research, the addition of this material in fibers and powder combined with bitumen has been studied and compared. Experiments such as modulus of resistance, indirect tensile strength, and Marshall Strength have been used to evaluate asphalt mixtures' properties. This study showed that the use of carbon in both fibers and powder would bring positive results for asphalt mixtures.

کلمات کلیدی:

Carbon powder, carbon fiber, Asphalt mix, Functional Properties

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1195204>

