

ABSTRAK

KARAKTERISITIK CAMPURAN ASPAL PORUS DENGAN MENGUNAKAN MATERIAL DARI LAMPUNG

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Aspal porus adalah salah satu campuran aspal yang sedang dikembangkan untuk konstruksi wearing course. Lapisan ini menggunakan gradasi terbuka (open graded) yang didominasi oleh agregat kasar, sehingga menghasilkan rongga yang cukup besar. Material yang digunakan dalam penelitian ini berasal dari Lampung. Tujuan dari penelitian ini untuk mengetahui karakteristik campuran aspal porus menggunakan material dari Lampung. Hasil dari pengujian agregat menunjukkan bahwa agregat yang berasal dari Lampung mampu memenuhi spesifikasi umum Bina Marga tahun 2018. Penelitian ini menunjukkan stabilitas tertinggi terdapat pada kadar aspal 5,5% dengan nilai stabilitas sebesar 552,52 kg dan stabilitas terendah pada kadar aspal 6,5% dengan nilai stabilitas sebesar 459,22 kg. Nilai flow terendah terdapat pada kadar aspal 5% yaitu sebesar 5 mm, sedangkan nilai flow tertinggi terdapat pada kadar aspal 6,5% yaitu sebesar 6,2 mm. VIM tertinggi terdapat pada kadar aspal 4,5% yaitu sebesar 21,77%, sedangkan nilai VIM terendah terdapat pada kadar aspal 6,5% yaitu sebesar 14,07%. Nilai cantabro loss tertinggi terdapat pada kadar aspal 4,5% yaitu sebesar 39,11%, sedangkan nilai cantabro loss terendah terdapat pada kadar aspal 6,5% yaitu sebesar 13,91%. Nilai asphalt flow down terendah terdapat pada kadar aspal 4,5% yaitu sebesar 0,16%, sedangkan nilai AFD tertinggi terdapat pada kadar aspal 6,5% yaitu sebesar 1,30%. Berdasarkan benda uji hasil kadar aspal optimum didapatkan nilai koefisien permeabilitas sebesar 0,075 cm/detik.

Kata kunci : Aspal porus, Permeabilitas, *marshall*, *cantabro loss*, *asphalt flow down*.

ABSTRACT

CHARACTERISTICS OF PORUS ASPHALT MIXES USING MATERIALS FROM LAMPUNG

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Porous asphalt is one of the asphalt mixtures being developed for wearing course construction. This layer uses open graded which is dominated by coarse aggregate, resulting in quite large voids. The material used in this study came from Lampung. The purpose of this study was to determine the characteristics of porous asphalt mixtures using materials from Lampung. The results of the aggregate testing show that aggregates originating from Lampung are able to meet the general specifications of Bina Marga in 2018. This study shows that the highest stability is found at 5.5% asphalt content with a stability value of 552.52 kg and the lowest stability at 6.5 asphalt content % with a stability value of 459.22 kg. The lowest flow value is found at 5% asphalt content, which is 5 mm, while the highest flow value is found at 6.5% asphalt content, which is 6.2 mm. The highest VIM was found at 4.5% asphalt content which was 21.77%, while the lowest VIM value was found at 6.5% asphalt content which was 14.07%. The highest cantabro loss value was found at 4.5% asphalt content, which was 39.11%, while the lowest cantabro loss value was found at 6.5% asphalt content, which was 13.91%. The lowest asphalt flow down value is found at 4.5% asphalt content, which is 0.16%, while the highest AFD value is found at 6.5% asphalt content, which is 1.30%. Based on the test specimens for the optimum asphalt content, the permeability coefficient value was 0.075 cm/second.

Key words : porous asphalt, permeability, marshall, cantabro loss, asphalt flow down.