

INTISARI

PENGARUH AIR ROB TERHADAP KARAKTERISTIK CAMPURAN ASPAL PEN 60/70 UNTUK LAPIS PERMUKAAN DI MUARA ANGKE, JAKARTA UTARA

Oleh : Rizal Wahyu Alifian

Dosen Pembimbing : Ir. Zainal Arifin, MT.

Beberapa ruas jalan di Muara Angke terletak di daerah yang berhubungan dengan laut. Beberapa ruas jalan tersebut sering tergenang air laut yang biasa disebut banjir rob. Banjir rob sendiri disebabkan oleh pemanasan global, pemanfaatan air tanah yang berlebihan, pembabatan hutan mangrove atau hutan bakau, keadaan topografi suatu wilayah, dan adanya fenomena perubahan muka tanah. Oleh karena itu perlu dilakukan penelitian tentang pengaruh lamanya genangan air rob terhadap karakteristik campuran aspal pada lapis permukaan di daerah Muara Angke, Jakarta Utara.

Dari pengujian *marshall* nilai stabilitas sampel benda uji dengan perendaman air rob selama 24 jam sebesar 1427,48 Kg, dengan waktu perendaman 48 jam sebesar 1175,50 Kg, dengan waktu perendaman 72 jam sebesar 806,89 Kg. Hasil penelitian menunjukkan bahwa terdapat pengaruh akibat perendaman dalam air rob dengan pola rendaman menerus yaitu 24 jam, 48 jam dan 72 jam. Semakin lama sampel benda uji di rendam air rob, akan berpengaruh pada meningkatnya nilai VMA, VIM dan kelelahan sedangkan pada stabilitas dan *MQ* akan mengalami penurunan. Akibatnya campuran aspal mengalami kehilangan durabilitas atau keawetan dengan bertambahnya waktu perendaman dalam air rob.

Kata kunci: *Marshall Test, AC-WC, Air Rob, Stabilitas, Kelelahan, VIM(Void In Mix), VMA(Void In Material Agregat), MQ(Marshall Quotient)*

UNIVERSITAS
MERCU BUANA

ABSTRACT

THE EFFECT OF ROB WATER ON CHARACTERISTICS OF ASPHALT PEN 60/70 MIXED FOR SURFACE LAYERS IN MUARA ANGKE, NORTH JAKARTA

By : Rizal Wahyu Alifian

Counselor : Ir. Zainal Arifin, MT.

Some roads in Muara Angke are located in areas related to the sea. Some of these roads are often flooded with sea water which is usually called tidal flood. The rob flood itself is caused by global warming, excessive use of ground water, clearing of mangrove forests or mangroves, the topography of a region, and the phenomenon of changes in land surface. Therefore, it is necessary to do a research on the effect of the length of water inundation on the characteristics of the asphalt mixture on the surface layer in the Muara Angke area, North Jakarta.

From testing Marshall the stability value of specimen samples with 24-hour rob water immersion was 1427.48 Kg, with a 48 hour immersion time of 1175.50 Kg, with a 72-hour immersion time of 806.89 Kg. The results showed that there was an effect due to immersion in rob water with a continuous soaking pattern of 24 hours, 48 hours and 72 hours. The longer sample specimens soaked in rob water will affect the increase in VMA, VIM and melt values while in stability and MQ will decrease. As a result, the asphalt mixture loses durability or durability with increasing immersion time in rob water.

Keywords: *Marshall Test, AC-WC, Water Rob, Stability, Flow, VIM(Void In Mix), VMA(Void In Aggregate Material), MQ(Marshall Quotient)*



UNIVERSITAS
MERCU BUANA