

**ANALISIS KARAKTERISTIK CAMPURAN LATASTON (*HRS-WC*)
AKIBAT RENDAMAN AIR LAUT PASANG (ROB) DENGAN ASPAL
MODIFIKASI POLIMER *STARBIT E-55***

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ABSTRAK

Perkerasan jalan di Indonesia umumnya mengalami kerusakan sebelum mencapai umur rencana, salah satu penyebabnya adalah genangan air laut. Penelitian ini bertujuan untuk menganalisa pengaruh air laut terhadap karakteristik campuran beraspal jenis Lataston Lapis Aus atau dikenal dengan istilah *Hot Rolled Sheet – Wearing Course (HRS-WC)* dengan penggunaan aspal modifikasi polimer.

Penelitian ini menggunakan variasi kadar aspal 6%, 6,5%, 7%, 7,5%, dan 8% terhadap total berat agregat dan pada pembuatan campuran *HRS-WC* gradasi semi senjang ini mengacu pada spesifikasi Bina Marga 2010. Perendaman benda uji pada suhu ruang dan variasi waktu perendaman dengan air tawar selama 24 jam dan dengan air laut selama 24 dan 48 jam.

Berdasarkan hasil penelitian, air laut mempengaruhi karakteristik *Mashall* pada benda uji. Jika dibandingkan dengan air tawar, nilai VMA dengan air laut mengalami kenaikan sebesar 3,80% dan 12,83%, nilai VFA dengan air laut mengalami penurunan sebesar 10,62% dan 18,37%, nilai VIM dengan air laut mengalami kenaikan sebesar 26,34% dan 55,77%, nilai stabilitas dengan air laut mengalami penurunan sebesar 12,39% dan 25,19%, nilai *flow* dengan air laut mengalami penurunan sebesar 28,80% dan 6,08%, serta nilai MQ dengan air laut saat 24 jam naik sebesar 28,73% dan saat 48 jam turun sebesar 19,98%. Hasil penelitian menunjukkan bahwa air laut dapat menjadi salah satu penyebab utama campuran mengalami penurunan keawetan, namun dengan penggunaan aspal modifikasi polimer *Starbit E-55* nilai stabilitas, *flow* dan MQ masih memenuhi persyaratan.

Kata Kunci : *HRS-WC*, aspal modifikasi polimer, air laut, karakteristik *Marshall*

**ANALYSIS THE CHARACTERISTICS OF HOT ROLLED SHEET
WEARING COURSE (HRS-WC) DUE TO TIDAL WATER IMMERSION
USING POLYMER MODIFIED ASPHALT (STARBIT E-55)**

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ABSTRACT

Road pavement in Indonesia was commonly damaged before it has reached its lifespan, one of the causes was tidal inundation. The aim of this study was to evaluate the effect of tidal water against characteristics of Hot Rolled Sheet – Wearing Course mixture using polymer modified asphalt.

In this study, the variations of asphalt used 6%, 6,5%, 7%, 7,5%, and 8% to total weight aggregate and for arranging a mixture of semi-gap graded HRS – WC was refer to Bina Marga 2010 Specification. The mixtures were soaked at room temperature and the variations of immersion time with fresh water for 24 hours and with seawater for 24 and 48 hours.

Based on the results, tidal water affects the characteristics of the Marshall on the mixture. Compared with fresh water, the value of VMA with seawater increased by 3.80% and 12.83%, VFA values with sea water decreased by 10.62% and 18.37%, VIM value with sea water increased by 26.34% and 55.77%, stability value with seawater decreased by 12.39% and 25.19%, the value of flow with seawater decreased by 28.80% and 6.08%, and the value of MQ with sea water during 24 hours increased by 28.73% and 48 hours down by 19.98%. The result showed that the seawater could be the one of the main causes in reducing the durability of the mixtures, however, with the use of polymer modified asphalt (Starbit E-55) the stability, flow and MQ values still meet the requirements.

Keyword : HRS-WC, polymer modified asphalt, tidal water, characteristics of Marshall