ABSTRACT

AC-WC MIXED CHARACTERISTICS WITH TEMPERATURE VERSION OF MIXING

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This study was conducted to determine the effect of temperature variations on the mixing process of the hot mix asphalt (hot mix asphalt) to Marshall parameters with reference to the specification of Bina Marga, 2010.

From the research that has been done, the value of which is used for asphalt content using the central limit asphalt content of 5.7% and the upper limit of 6.8%, after that, do the mixing temperature variation of 125oC - 160oC.

Variations in mixing temperature 125oC, 135oC, 145oC, 155oC, 160oC AC-WC layer smooth gradations center limit with asphalt content of 5.7%, at a mixing temperature of 125 oC does not meet the Bina Marga specifications, because the value of the air voids in the mix (VIM) at a temperature of 125°C at 5.611%, which exceeds the minimum standards at 3.5% to 5%. As for the temperature variation of 135°C to 160°C mixing has met the minimum value of the Marshall parameter. Next to the mixing temperature variations upper limit 6.8% asphalt content temperatures are not eligible to be in a temperature of 125°C. Due to a temperature of 125°C value of the cavity filled with asphalt (VFA) of 62.718% below the minimum standard value that is equal to 65%. As for the value of air voids in the mix (VIM) which exceeds the minimum value of 5% is in the temperature 125°C, 135°C, 145°C which each value by 7.778%, 6.8919%, 6.2490%, and then at a temperature of 160°C for 3, 1429% of the value below the minimum value of 3.5%. Only at a temperature of 155°C which meet Marshall parameter values.

Keywords : Temperature, Asphalt Concrete-Wearing Course (AC-WC), Marshall Parameter, Bina Marga Specification 2010.