

ABSTRACT

THE EFFECT OF ROAD DRAINAGE FLOODING ON THE MIXED PERFORMANCE PERFORMANCE OF RAO-GUNUNG MANAHAN ROAD ASPHALT IN PASAMAN REGENCY.

Some roads in Indonesia are often flooded by rainwater, as we can see in our natural surroundings, the pavement is often damaged, especially the road pavement wear layer (AC-WC) because it is inundated by water. rain on the asphalt layer. This study was intended to analyze the effect of rainwater immersion on the strength and durability of the Laston mixture (AC-WC).

The results of the preparation and testing of both aggregate and asphalt materials as well as the determination of the gradation of the AC-WC mixture showed the results were in accordance with the requirements. Furthermore, testing is carried out to determine the optimum asphalt content (KAO) using the Marshall method. Furthermore, the test is to find a comparison of stability values after immersion in rainwater after variations in immersion time.

Phase 1 testing obtained the optimum asphalt content of 5.75%. From the test results, the stability value increased from 4% to 5.5% asphalt content and the stability decreased after the addition of asphalt content to 6%, the value of flow, VMA, VFB, MQ increased with the addition of asphalt content while the VIM value decreased with the addition of asphalt content. The second stage of the immersion time modification test resulted in a decrease in the strength and durability of the laston mixture with the addition of the duration of the immersion time for the research sample.