

## THE EFFECT OF SEA WATER IMMERSION ON BUTON ASPHALT (AS-BUTON) MIXTURE

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<b>Abstract</b>	<p>One of the causes of flexible pavement damage is being submerged in water with a high acidity, such as seawater. To overcome this condition, a study on the use of buton asphalt (as-butun) was conducted. The advantages of as-butun are that it has higher adhesion and is more resistant to temperature changes. As-butun modification by mixing Lawele as-butun Southeast Sulawesi with oil asphalt pen 60/70. This study focuses on determining the effect of the addition of as-butun to the modified asphalt mixture and the effect of seawater immersion on as-butun mixture based on the Marshall characteristic test. The percentage by weight of as-butun used is 5%, 7.5%, and 10%. The immersion was carried out in freshwater and seawater immersion for up to 24 hours at a temperature of 30 degrees C. The result of this study show that the addition of as-butun increase the value of stability, void in mixture, Marshall quotient (MQ), and void in mineral aggregate, but reduce the flow, void filled with asphalt, and density. The increase of stability and MQ value in seawater-immersion due to the addition of as-butun was higher than that in freshwater. The stability value of the 10% modified as-butun mixture in freshwater-immersion increased by 169.338 kg (14.61%) and in seawater-immersion increased by 1261.669 kg (55.65%). The flow value in freshwater-immersion decreased by 1.9 mm (25.33%) while in seawater-immersion decreased by 1 mm (14.08%). For further research, variations in the addition of as-butun will be carried out to produces a modified asphalt mixture with the best performance.</p>
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