

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

<b>Publons ID</b>	(not set)
<b>Wos ID</b>	WOS:000747761100004
<b>Doi</b>	10.11113/jurnalteknologi.v84.16802
<b>Title</b>	THE EFFECT OF SEA WATER IMMERSION ON BUTON ASPHALT (AS-BUTON) MIXTURE
<b>First Author</b>	
<b>Last Author</b>	
<b>Authors</b>	Sugiyanto, G; Widarini, W; Indriyati, EW;
<b>Publish Date</b>	JAN 2022
<b>Journal Name</b>	JURNAL TEKNOLOGI-SCIENCES & ENGINEERING
<b>Citation</b>	
<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-buton) was conducted. The advantages of as-buton are that it has higher adhesion and is more resistant to temperature changes. As-buton modification by mixing Lawele as-buton Southeast Sulawesi with oil asphalt pen 60/70. This study focuses on determining the effect of the addition of as-buton to the modified asphalt mixture and the effect of seawater immersion on as-buton mixture based on the Marshall characteristic test. The percentage by weight of as-buton 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-buton 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-buton was higher than that in freshwater. The stability value of the 10% modified as-buton 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-buton will be carried out to produces a modified asphalt mixture with the best performance.</p>
<b>Publish Type</b>	Journal
<b>Publish Year</b>	2022
<b>Page Begin</b>	29
<b>Page End</b>	39
<b>Issn</b>	0127-9696
<b>Eissn</b>	2180-3722
<b>Url</b>	<a href="https://www.webofscience.com/wos/woscc/full-record/WOS:000747761100004">https://www.webofscience.com/wos/woscc/full-record/WOS:000747761100004</a>
<b>Author</b>	Prof. Dr. Ir. GITO SUGIYANTO, S.T, M.T., IPM.,ASEAN Eng