UNIVERSITI TEKNOLOGI MARA
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FOAMED CONCRETE WITH RICE HUSK FIBRE ON WALL PANEL

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations Of University Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This research report has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

The terms foam concrete and light concrete are more often used in the construction and commercial sectors. Since there is no requirement for coarse material in its creation, foam concrete is not only lightweight but also inexpensive. Foam concrete has a restricted range of applications since its rigidity and strength are weaker than those of traditional concrete. The aim of this study is to discover the potential of foam concrete mixed with rice husk fibre to achieve a lightweight component and increase its strength. Therefore, by filling the spaces in the foam concrete, the rice husk fibre used in this study could increase the mechanical properties. The amount of rice husk fibre added is 5% of the total weight of the mixture. The result obtained from the experiment for lightweight properties was achieved. As much as 0.532 kg was successfully reduced for foam concrete with rice husk fibre compared to the normal concrete mixture. For the compressive strength, the result shows small differences of values between foam concrete without fibre and foam concrete with fibre added which is 2.5 Mpa and 5.9 Mpa after 28 days. In conclusion, rice husk fibre in foam concrete only enhances the lightweight properties of the wall panel but does not show a significant result for its strength.

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