



CONCRETE LINTEL PERFORMANCE WITH LECA AND CELLULOSE FOR IBS

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DESCRIPTION OF INNOVATION

The primary goal for this project is to produce lightweight lintel structure using LECA. A particular type of lightweight concrete called structural lightweight concrete is the one which is comparative lighter than conventional concrete but at the same time strong enough to be used for structural purposes.

IMPACT OF INNOVATION

The use of lightweight prefabricated structures are less compared to normal ones due to their price. their price is high due to use of additives. normal concrete, on the other hand, will add to dead load for any structural members. Therefore, this study is important to produce lighter lintel structure by using IBS system containing LECA which replaces the coarse aggregate (without use of additives) while preserving strength. The importance in social is to help the community, especially in the construction of affordable housing. Conventionally built housing takes longer time than housing than is built using prefabricated systems. The use of lightweight aggregates also makes it easier to install certain parts of house because concrete that use lightweight aggregates is lighter in weight.

OBJECTIVE

1. To analyse lintel structure which consist Light Expanded Clay (LECA) in term of density and weight
2. To evaluate the compressive strength and flexural strength of the lintel structure using IBS system.

DIAGRAM BLOCK/OPERATING FLOW CHART

