

Structural lightweight concrete plays an important role in the construction industry, especially for the high-rise buildings. It can only be produced using lightweight aggregates. Palm Oil clinker (POC) is a solid waste from the oil palm industry and could be used as lightweight aggregate in concrete mixture. However, the density of this lightweight aggregate is more than the density of the other types of natural and artificial lightweight aggregate. Therefore, the density of concrete made of this lightweight aggregate is relatively high and is in the range of semi-lightweight concrete. In the current study, POC was partially substituted with a lighter lightweight aggregate namely oil palm shell (POC) in a semi-lightweight concrete with high strength to further reduce the density of the concrete. To this end, POC was replaced with 100%, 80%, 50% and 30% by volume.



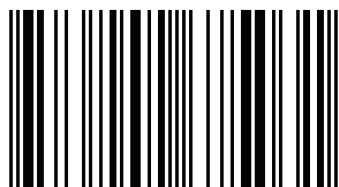
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LIGHT WEIGHT CONCRETE BY NATURAL MATERIAL

PERFORMANCE OF LIGHT WEIGHT CONCRETE BY
USING PALM OIL CLINKER AS A COARSE AGGREGATE



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